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TRANSACTIONS

OF THE

FIFTH INTERNATIONAL SANITARY CONFERENCE

OF THE

AMERICAN REPUBLICS

HELD AT
SANTIAGO DE CHILE,
NOVEMBER 5 TO 11, 1911.

PUBLISHED AND DISTRIBUTED
UNDER THE
AUSPICES OF THE PAN AMERICAN UNION
JOHN BARRETT, DIRECTOR-GENERAL
WASHINGTON, D. C.

Pan American sanitary conference

Columbia University
in the City of New York

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SPECIAL NOTE.

Mr. John Barrett, the Director General of the Pan American Union, an institution devoted to the development of comity and commerce among the American nations, and which acts incidentally as the office of the International Sanitary Bureau, presents his compliments to the readers of this volume, and, in expressing the hope that they will enjoy a perusal of its contents, desires to state that if they care for further information concerning the Latin-American Republics they can obtain it by addressing him at the Pan American Union, Washington, D. C.

THE OFFICIAL DELEGATES TO THE FIFTH INTERNATIONAL SANITARY CONFERENCE OF AMERICAN REPUBLICS, HELD AT SANTIAGO, CHILE, NOVEMBER 5-12, 1911.

Seated, from left to right: Dr. Claudio Sanjinés, of Bolivia; Dr. Gregorio M. Guiteras, of the United States; Dr. Luis Razetti, of Venezuela; Dr. Gregorio Araoz Alfaro, of Argentine Republic; Dr. Alejandro del Rio, of Chile, President; Dr. Ernesto Fernández Espiro, of Uruguay; and Dr. Fernando Alvarez, of the Argentine Republic.

Middle row, from left to right: Dr. Alcibiades Vicencio, of Colombia; Dr. Caupolicán Pardo Correa, of Panama; Dr. Antonio Ferrari, of Brazil; Dr. J. C. Perry, of the United States; Dr. Octavio Maira, of Chile; General Ismael la Roche, of Brazil; Dr. Gregorio Amunátegui, of Chile; Dr. Carlos Altamirano, of Chile; Dr. Roberto Dávila Boza, of Chile; Dr. Pedro Lautaro Ferrer, of Chile; Dr. Jaime H. Oliver, of Uruguay; Dr. Juan B. Miranda, of Salvador; Dr. Salvador Ortega, of Guatemala.

Last row, from left to right: Capt. Granville Fortescue, representative of the Pan American Union; Dr. Roberto del Rio, of Chile; Dr. Pablo Acosta Ortiz, of Venezuela; Dr. Waldo Silva Palma, of Chile; Dr. Luis Astaburuaga, of Chile; Dr. Manuel Camillo Vial, of Chile; Mr. Guillermo Illanes, Civil Engineer, of Chile; Dr. Hugo Roberts, of Cuba; Dr. Eduardo García Collado, of Chile; Dr. Jesús Monjarás, of Mexico; Dr. Ernesto Soza, of Chile; Dr. Luis Fepile Cornejo y Gómez, of Ecuador; Dr. Judio Bianchi, of Guatemala, and Dr. Francisco Landa, of Chile.

Pan American Sanitary Conferen
5, Santiago de Chile, 1911.

TRANSACTIONS OF THE FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS

HELD IN SANTIAGO DE CHILE,
NOVEMBER 5 TO 11
1911

PUBLISHED AND DISTRIBUTED UNDER THE AUSPICES OF THE PAN AMERICAN UNION, JOHN BARRETT, DIRECTOR-GENERAL, WASHINGTON, D. C.

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Washington, D. C.

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CALL FOR THE FIFTH INTERNATIONAL SANITARY CONFERENCE.

In accordance with the resolution adopted at the Fourth International Sanitary Conference, held in the city of San José, Costa Rica, from December 25, 1909, to January 3, 1910, the date, November 1-12, 1911. has been fixed for the assembling of the Fifth International Sanitary Conference in the city of Santiago, Chile.

The following official correspondence in regard to the call and the provisional program of the Conference are printed in the interest of the Conference.

INTERNATIONAL SANITARY BUREAU,
WASHINGTON, D. C., May 10, 1911.

HONORABLE JOHN BARRETT,
Director General, Pan American Union,
Washington, D. C.

SIR:

In accordance with a resolution adopted at the Fourth International Sanitary Conference, held at San José, Costa Rica, December 25, 1909, to January 3, 1910, and with the approval of the International Sanitary Bureau, I inclose herewith a call for the meeting of the Fifth International Sanitary Conference. A copy of the provisional program that will govern the deliberations of the conference is also inclosed.

I have also to request that, pursuant to the provisions of Paragraph 7 of the resolutions relative to sanitary police, adopted at the Second International Conference of American States, you take the necessary measures to announce this call and bring the provisional program to the notice of the governments concerned.

It is understood that the proper representations will be made by your office to the Legation of Chile, so that the invitations to the Conference may be jointly issued by that Government.

Respectfully,
(Signed) WALTER WYMAN,
Chairman, International Sanitary Bureau.

FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS,

TO BE HELD IN THE CITY OF SANTIAGO, CHILE, NOVEMBER 1-12, 1911.

INTERNATIONAL SANITARY BUREAU OF THE AMERICAN REPUBLICS,

WASHINGTON, D. C., May 12, 1911.

Announcement is hereby made that, in compliance with a resolution adopted at the Fourth International Sanitary Conference, the Fifth International Sanitary Conference of the American Republics will be held in Santiago, Chile, November 1-12, 1911, under the presidency of Dr. Alexander Del Rio and the auspices of the Chilean Government.

The attendance of representatives of every American republic is earnestly desired, including those which have not taken part in previous conferences.

As stated in the Provisional Program, a number of subjects will be discussed at Santiago, which are of vital interest to all the nations of this continent, and it is expected that the deliberations of this Conference will be fully as important and fruitful in results as the preceding ones. The provisional program which follows is subject to amendment or revision, as may subsequently seem advisable.

PROVISIONAL PROGRAM FOR THE FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS, TO BE HELD IN THE CITY OF SANTIAGO, CHILE, NOVEMBER 1-12, 1911.

1. Reports by the several delegations in regard to the sanitary legislation enacted in their respective countries since the last Conference.
2. Special reports relative to the means employed in the different countries for the enforcement of the resolutions agreed to in the last Convention.
3. Reports discussing the vital and morbidity statistics of each country during the last two years.
4. Special reports on the sanitary progress of the principal cities in each country.
5. Discussion of measures relative to social hygiene, with special reference to venereal diseases.
6. Determination of what constitutes immunity to yellow fever.
7. Discussion of hygiene of sea traffic, having in view specially systematic measures for the deratization of ships.
8. Discussion of hygiene of tramway and railroad traffic.

By direction of the International Sanitary Bureau of the American Republics.

WALTER WYMAN,
Chairman.

As requested in the communication of Dr. Walter Wyman, Chairman of the International Sanitary Bureau, the Director General of the Pan American Union has addressed a letter to the diplomatic representatives of the countries interested in the Conference transmitting a copy of the call, and the Provisional Program, which has also been given to the press, and will be printed in the Bulletin of the Pan American Union.

DELEGATES.

1.—Argentine Republic	Dr. Gregorio Araoz Alfaro. Dr. Fernando Alvarez.
2.—Bolivia	Dr. Claudio Sanjinés.
3.—Brazil	Dr. Ismael da Rocha. Dr. Antonino Ferrari.
4.—Colombia	Dr. Alcibíades Vicencio.
5.—Costa Rica	Dr. Fernando Iglesias.
6.—Cuba	Dr. Hugo Roberts.
7.—Dominican Republic	Señor Tito V. Lizoni. Dr. J. Ramón Campos.
8.—Ecuador	Dr. Luis Felipe Cornejo y Gómez.
9.—United States	Dr. Gregorio M. Guiteras. Dr. J. C. Perry.
10.—Guatemala	Dr. Salvador Ortega. Dr. Julio Bianchi.
11.—Honduras	Señor Oscar Valenzuela Valdés.
12.—México	Dr. Jesús Monjarás.
13.—Panamá	Dr. Caupolicán Pardo Correa.
14.—Paraguay	Dr. Rojelio Urízar.
15.—Salvador	Dr. Juan B. Miranda.
16.—Uruguay	Dr. Ernesto Fernández Espiro. Dr. Jaime H. Oliver.
17.—Venezuela	Dr. Pablo Acosta Ortiz. Dr. Luis Razetti.
18.—Chile:	

OFFICIAL DELEGATION.

Executive Committee.

Provisional President: Dr. Alejandro del Río.
Secretary to the Delegation: Dr. Gregorio Amunátegui.
Treasurer: Dr. Octavio Maira.
Members: Dr. Paulino Alfonso, Dr. Luis Asta-Buruaga, Dr. Mamerto Cádiz, Dr. Lucio Córdova, Dr. Ramón Corbalán Melgarejo, Dr. Pedro Lautaro Ferrer, Dr. Eduardo Moore, Dr. Manuel Camilo Vial.

Members of the Delegation:

Dr. Vicente Izquierdo, Dr. Roberto del Río, Dr. Ricardo Dávila Boza, Dr. Francisco Landa, Dr. Alcibíades Vicencio, Dr. Eduardo García Collao, Engineer Jorge Calvo Mackenna, Dr. Conrado Ríos, Dr. Ernesto Soza, Dr. Waldo Silva Palma, Dr. Alberto Adriazola, Engineer Guillermo Illanes, Dr. Carlos Altamirano, Dr. Daniel Carvallo, Dr. Benjamin Manterola, and Dr. Enrique Deformes.

OFFICERS OF THE CONFERENCE.

President.

Doctor Alejandro del Río, Chile.

Vice-Presidents.

Doctor Gregorio Araoz Alfaro, Argentine Republic.
Doctor Claudio Sanjinés, Bolivia.
Doctor Ismael da Rocha, Brazil.
Doctor Alcibíades Vicencio, Colombia.
Doctor Fernando Iglesias, Costa Rica.
Doctor Hugo Roberts, Cuba.
Señor Tito V. Lizoni, Dominican Republic.
Doctor Luis F. Cornejo y Gómez, Ecuador.
Doctor Gregorio M. Guiteras, United States.
Doctor Salvador Ortega, Guatemala.
Señor Oscar Valenzuela Valdés, Honduras.
Doctor Jesús Monjarás, Mexico.
Doctor Caupolicán Pardo Correa, Panama.
Doctor Rogelio Urízar, Paraguay.
Doctor Juan B. Miranda, Salvador.
Doctor Ernesto Fernández Espiro, Uruguay.
Doctor Pablo Acosta Ortiz, Venezuela.

Secretaries.

Doctor Grecorio Amunátegui, Chile.
Doctor Jaime C. Perry, United States.
Doctor Luis Razetti, Venezuela.

Committee on Credentials.

Señor Paulino Alfonso, Chile.
Doctor R. Corbalán Melgarejo, Chile.
Doctor Vicente Izquierdo S., Chile.
Doctor Caupolicán Pardo Correa, Panama.

Executive Committee.

Doctor Alejandro del Río, Chile.
Doctor Fernando Alvarez, Argentine Republic.
Doctor Ismael da Rocha, Brazil.
Doctor Gregorio M. Guiteras, United States.
Doctor Jesús Monjarás, Mexico.
Doctor Ernesto Fernández Espiro, Uruguay.

Committee on Plague.

Doctor Antonino Ferrari, Brazil.
Doctor Pedro L. Ferrer, Chile.
Doctor Luis F. Cornejo y Gómez, Ecuador.

Committee on Malaria and Yellow Fever.

Doctor Claudio Sanjinés, Bolivia.
Doctor Hugo Roberts, Cuba.
Doctor Jaime C. Perry, United States.

Committee on Cholera.

Doctor Gregorio Araoz Alfaro, Argentine Republic.
Doctor Luis Asta-Buruaga, Chile.
Doctor Gregorio M. Guiteras, United States.

Committee on Sanitation of Sea and Frontier Cities.

Doctor Carlos Altamirano, Chile.
Engineer Jorge Calvo Mackenna, Chile.

Doctor Ricardo Dávila Boza, Chile.
Doctor Eduardo García Collao, Chile.
Engineer Guillermo Illanes, Chile.
Doctor Manuel Camilo Vial, Chile.
Doctor Jaime H. Oliver, Uruguay.

Committee on Prophylaxis of Acute Transmissible Diseases.

Doctor Francisco Landa, Chile.
Doctor Alcibíades Vicencio, Colombia.
Doctor Fernando Iglesias, Costa Rica.
Doctor Juan B. Miranda, Uruguay.
Doctor Pablo Acosta Ortiz, Venezuela.

Committee on Prophylaxis of Chronic Transmissible Diseases.

Doctor Roberto del Río, Chile.
Doctor Ernesto Soza, Chile.
Doctor Salvador Ortega, Guatemala.
Doctor Rogelio Urízar, Paraguay.

Officers of the International Sanitary Bureau of Washington, D. C.

Chairman.

Surgeon-General Doctor Walter Wyman, United States, deceased.

Members.

Doctor Alejandro del Río, Chile.
Doctor Hugo Roberts, Cuba.
Doctor Oscar Dowling, United States.
Doctor Salvador Ortega, Guatemala.
Doctor Eduardo Licéaga, Mexico.
Doctor Luis Razetti, Venezuela.

International Sanitary Information Bureau of Montevideo.

Chairman.

Doctor Ernesto Fernández Espiro.

Members.

Doctor Joaquín de Salterain.
Doctor Julio Etchepare, Secretary.

DELEGATES OF THE INTERNATIONAL SANITARY BUREAUS OF WASHINGTON OR MONTEVIDEO AND MEMBERS OF THE INTERNATIONAL SANITARY INFORMATION COMMITTEES.

Bolivia	Dr. Manuel Cuéllar. Dr. Elías Sagárnaga. Dr. Enrique Araníbar.
Chile	Dr. A. Dávila Boza. Dr. Pedro L. Ferrer. Dr. Lucio Córdova.
Costa Rica	Dr. Carlos Durán. Dr. Elías Rojas. Dr. José Maria Soto.
Cuba	Dr. Juan Guiteras. Dr. Enrique B. Barnet. Dr. Arístides Agramonte.
United States of America	Dr. A. H. Glennan. Dr. J. W. Kerr. Dr. John W. Trask.
Guatemala	Dr. Salvador Ortega. Dr. Juan J. Ortega. Dr. Julio Bianchi.
Honduras	Dr. José M. Ochoa Velásquez. Dr. Ignacio Castro. Dr. Juan Angel Arias.
Nicaragua	Dr. Luis Debayle. Dr. Rodolfo Espinosa. Dr. Juan B. Sacoza.
Mexico	Dr. Eduardo Licéaga. Dr. Jesús Monjarás. Dr. Nicolás Ramirez de Arellano.
Panama	Dr. Luis Urriola. Dr. Alfonso Preciado. Dr. Augusto S. Boyd.
Salvador	Dr. Tomás G. Palomo. Dr. Francisco Guevara. Dr. Rafael B. Castro.
Venezuela	Dr. Pablo Acosta Ortiz. Dr. Carlos Manuel de la Cavada. Dr. Luis Razetti.

Program of the Fifth International Sanitary Conference of the American Republics,

To be Held in Santiago de Chile From the 5th to the 12th of November, 1911.

1. Sanitary laws, regulations and measures adopted in each country since the Fourth Conference.
2. Fulfilment of the resolutions adopted in the first four sanitary Conferences.
3. Report relating to the adoption of the Convention of Washington of 1905 and of the modifications of its 9th article by the 4th International Sanitary Conference and the 4th International American Conference (of Buenos Aires) (Note A).
4. Constitution and work of the reporting International Sanitary Commissions.
5. Sanitation of cities and specially of ports indicating the participation which the National Government has had in the execution of these works.
6. Prophylactic measures taken against plague, cholera and yellow fever, with special mention of the methods employed for the destruction of rats, flies and mosquitoes.
7. Criterium by which the health authorities must be guided to determine when a person shall be considered immune from yellow fever.
8. National and international protective measures relating to tuberculosis, venereal diseases, small-pox, malaria, tracoma, leprosy and scleroma (Note B). Legislation adopted against these diseases and the results obtained.
9. Monthly and yearly statistics of morbidity and mortality in the principal ports and cities; information in regard to the adoption of Bertillon's nomenclature.
10. Sanitary inspection of international maritime and terrestrial traffic in case of communicable or quarantinable diseases; their specification. Regulations relating to the retention or devolution of patients in such circumstances.
11. Sanitary laws on immigration.
12. Data on the adoption of maritime sanitary documents approved by the 4th Conference.

Note A.—Art. 9 of the Convention of Washington says: "Art. 9. In order that a locality be considered free of contagion, it is necessary to furnish the official proof: 1st. That there have been no deaths nor new cases of plague or cholera for five days after the isolation, death or discharge of the last case of plague or cholera; in the case of yellow fever the period shall be eighteen days, but each government reserves the right to prolong this period. 2d. That all measures of disinfection have been applied, and in treating of plague cases that there have been carried out all measures for the destruction of rats, and in case of yellow fever that the proper measures have been taken against mosquitoes."

The modification introduced by the Fourth International Sanitary Conference (San José de Costa Rica, 1909-10), says: "This Fourth Sanitary Conference recommends that Article 9 of the Convention of Washington be interpreted as follows: Art. 9. In order that a locality be considered free of contagion it will be necessary to furnish official proof to the satisfaction of the interested party: 1st. That there have been no deaths nor new cases of plague or cholera for five days after the isolation, death or discharge of the last case of plague or cholera; in case of yellow fever the period shall be eighteen days, but each government reserves the right to prolong this period against those countries where the measures for the isolation of cases, the destruction of mosquitoes and the disinfection of foci are not observed. 2d. That all measures of disinfection have been applied, and in treating of plague cases that there have been carried out all measures for the destruction of rats; and in the case of yellow fever that the proper measures have been taken against mosquitoes."

The Fourth International American Conference, held in Buenos Aires, resolved to draw up Art. 9 of the Conference of Washington thus: "In order that a locality be considered free of contagion, it will be necessary to furnish official proof TO THE SATISFACTION OF THE INTERESTED PARTIES, etc. (the rest similar to the modification introduced by the Fourth International Sanitary Conference).

NOTE B.—This new subject has been introduced: 1st. Because it is a disease which has a tendency to extend from its primitive homes and become a scourge which must be taken into account; 2d. Because there exist in America, aside from sporadic cases, two well characterized foci, San Salvador and Chile; 3d. Because it is a theme for study recommended by the 1st Pan American Scientific Congress (Chile, 1908); and 4th. Because its study constitutes to-day a motive of world-wide interest, as shown by the resolution taken at the Sixteenth International Congress of Medicine (Buda-Pesth, 1909), whereby a permanent commission was appointed with that object, and of which are members, among others, Doctors Freudental and Meyer, of the United States of America, and Dr. A. del Rio, of Chile; the formation of an international league with its seat at Vienna, and the future meeting of a conference in said city for carrying out this purpose.

RECOMMENDATIONS.

1. The Government of the American Republics are recommended that, for future Sanitary Conferences, it is convenient to nominate delegates who have assisted at previous Conferences; and when the delegations are composed of more than one member, that at least one of them shall meet the foregoing requisite, or that, in any case, the delegates shall be sanitary authorities in their respective countries.

2. Each delegation shall present a paper or report which shall deal precisely and necessarily with the subject marked out in this program, and also a concise extract of the same to be read within fifteen minutes' time at the sessions. Each extract shall be printed in Spanish and English; that of Brazil in Portuguese and English, and that of Hayti in French and English.

TRANSACTIONS OF THE FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.

FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.

FIRST DAY—SUNDAY, NOVEMBER 5, 1911.

Afternoon—Opening Session.

At 2 o'clock in the afternoon there assembled in the Hall of Honor of the National University of Chile, in the city of Santiago, the Diplomatic and Consular Corps, the Delegates to the Conference, and members of the Chilean National Congress, of the Courts of Justice, of the Council of Public Instruction, of the Superior Council of Health, of the various Faculties of the University, of the Board of Beneficience, etc. Shortly after two o'clock, the President of the Republic, the Ministers of the Interior, of Foreign Affairs, and of Public Instruction, the Presidents of the Senate and of the Chamber of Deputies, the Rector of the University, the Provisional President of the Conference, the Dean of the Faculty of Medicine, the Secretary General of the University, the Secretary of the Chilean Delegation, and the Aide-de-Camp to the President of the Republic, occupied the places of honor.

The formal inauguration of the Conference was then begun in the following manner:

The Minister of Foreign Affairs, Sr. Enrique A. Rodriguez:

The Republic of Chile rejoices on having as its guests the distinguished scientific personages who have gathered in this city for the purpose of studying and solving the high and varied problems tending to establish the best ways of preserving human life. And in behalf of the Supreme Government, I have the honor to welcome the Delegates of the Fifth International Sanitary Conference.

It is gratifying to note that these Conferences have been increasing the number of adherences by the American Governments, and Chile congratulates itself on this occasion for having been honored with the attendance of the official delegates from seventeen Republics of the three Americas. The Government expresses a national feeling by extending to you, on this solemn occasion, its thanks for so high a distinction, which it owes to those Republics as well as to their men of science, many of whom have already brilliantly collaborated in previous Conferences.

These periodic Conferences, created by the Second Pan American Conference (1901-1902), are inspired not only by an idea of preservation, but also by an urgent spirit of altruism, because they are beneficial to the American Republics and to humanity in general. The meetings devoted to the interesting study of international and public hygiene, define the measures of defense that the countries must adopt in order to prevent the propagation, through their littorals and fron-

tiers, of transmissible diseases, such as cholera, plague, and yellow fever, and at the same time they encourage Governments to check the development of epidemics, by improving the interior sanitary conditions of each country.

The scientific discussions that take place in these Conferences, the exchange of ideas among the sanitary representatives, must necessarily wield a positive influence upon the hygienic measures of our Republics. Aside from its undisputed scientific merit, these meetings also realize a generous international work, free from the conventional forms of the Foreign Offices. The intercourse amongst superior men who contribute efficiently towards the direction of the intellectuality of the peoples of America, assures and strengthens fraternal sentiments; it creates special ties of friendship which concur in the realization of the ideals of peace and harmony that might tend to constitute their highest aspiration. It enables them to know without any effort, the social structure, the mechanism of public institutions, their economic force, the industrial, scientific and literary progress, and, in a word, everything that gives the stamp of civilization and progress, and that marks the importance of civilization and progress in the New World.

Reviewing the work of the four previous Conferences, the first two held in Washington in 1902 and 1905, respectively, the third in Mexico, in 1907, and the fourth in San José de Costa Rica, in 1909, we see what has been done in our continent in the interest of public health.

It is thus that the conquests of science open up new ways. Public health, one of the principal conditions for the vitality of nations, should also be one of the principal aims of all governments.

Chile has been represented in all the previous Sanitary Conferences, whose resolutions, reported to the Government by our Delegates, have been made subject of special study and interest. It has been the wish of the Government to submit to this assembly of eminent experts a brilliant record of work done for improving public health. But unfortunate circumstances, unavoidable and unforseen catastrophies, such as the earthquake of 1906, the material damages caused thereby it has been necessary to attend to first, have prevented it from achieving its aspirations.

The water supplies established in all provincial and departmental capitals, and the sewer systems that have been or are nearly completed in ten cities of the Republic, constitute only a portion of the projects that we are determined to carry out. New means of maritime and land communication will facilitate the intercourse among our Republics and will put us in closer contact with Europe; but it is necessary to devote our attention to the sanitary prophylaxis that such progress demands, as a guaranty that must be offered by every civilized nation. All nations are solidarily responsible as to everything that concerns public health, and no good result can be accomplished without a common action.

The labor of every new Conference will have to be more arduous and complicated, but, gentlemen, you may rest assured that to stimulate your work you may depend upon all governments directly interested in the success of the resolutions that may be passed.

Messrs. Delegates: Your attendance in this Convention, and the distinguished position that you occupy, are in keeping with the just titles and merits conquered in the cultivation of science; I, therefore, predict that your deliberations will be crowned by most brilliant results, and trust that Chile in particular will derive great benefits from your enlightened advices.

His Excellency, the President of the Republic, has been pleased to show you by his presence the importance that he attaches to the tasks before you, and in his name I declare that the Fifth International Sanitary Conference is opened.

The Provisional President, Dr. Alejandro Del Río:

Mr. President of the Republic, Messrs. Ministers, Messrs. Delegates: The Fifth International American Sanitary Conference which we inaugurate today under the high auspices of the Chilean Government, will undoubtedly mark a memorable date in the development of sanitary progress. Hygiene, a science which only a few decades ago was in its incipiency, emerging from the crucible of the experimental method, has become the great distributor of human health. Its principles established in a definite form; its investigation methods, safer and more rapid from day to day, and the transcendental efficiency of a result, are facts that already stand with an irresistible force before the public conscience.

Exotic diseases—be they plague, cholera or yellow fever—being known today by their causes and means of propagating, are now easily controlled by the joint action of science and the will of man. Likewise, endemic or epidemic diseases, whether they be malaria, typhoid fever or tuberculosis, disappear or diminish considerably in countries subject to the influence of the present means of sanitation. Hygiene nowadays means health and welfare of individuals and wealth and prosperity of the nation.

For a long time and only until recently, a decisive importance—undoubtedly exaggerated—was attached to international conventions establishing more or less strict rules of sanitary police in the frontiers of countries; but these great hindrances to the means of communication among men and to commercial intercourse among countries, for the sake of hygiene wrongly understood and applied, have now, fortunately, passed to history.

The great Pettenkofer, the founder of scientific hygiene, was perfectly right when he affirmed that no frontiers could be proof against unhealthy germs; this affirmation, though discouraging at first, has a far-reaching beneficial effect, because it diverts the attention of science and the action of governments from the useless and harmful chimera of a complete frontier defense; and because it concentrates such attention and action upon the only substantially fruitful object which should be considered in this matter, to wit, the defense of the nation by means of the strength of her citizens and by the success of the respective national methods of hygiene.

Without absolutely disregarding the usefulness of conventions, the success of the sanitary defense of every country depends, in the first place, upon the truth of the principles from which the legislators have

derived their inspiration, and, in the second place, on the proper organization of the sanitary services. And I must add that under ordinary circumstances these are the factors destined to eradicate endemic diseases and to reduce the permanent causes of unhealthiness.

In Chile we have passed slowly through the first stage of our emancipation from colonial traditions and prejudices of ignorance. Our geographic position and the obstacles opposed by nature to our communication with the centers of culture, have produced a perceptible delay in the sanitation of our cities; but the consciousness of this delay has aroused in our souls a noble emulation that is already beginning to be fruitful, and that will undoubtedly be still much more so in the future.

During the sessions of the Conference we shall show the sanitary works that we have carried out and the elements of various kinds that have contributed towards its realization. We shall also show frankly our failures and deficiencies, but at the same time we will exhibit the projects for improvements, which do credit to our efforts and hopes.

Messrs. Delegates: I have the high honor of extending to you in behalf of the Chilean Delegation, our most respected and cordial welcome. You may be sure that the people of Chile, and specially the capital of the Republic, honored by your presence, join us in greeting you.

Various circumstances predict a brilliant success for the Fifth American Sanitary Conference. Yours shall be the honors.

The Secretary of the Chilean Delegation, Dr. Gregorio Amunátegui then offered the floor to one Delegate of each nation, by alphabetical order.

The Delegate from the Argentine Republic, Dr. Araoz Alfaro. Mr. President of the Republic; Messrs. Ministers; Mr. President; Messrs. Delegates: It is with real pleasure that the Government of the Argentine Republic participates in this high gathering of scientific men, a conference initiated by our great sister of the north for the purpose of finding the most perfect solutions to the great and numerous problems that affect the health of the American countries.

By initiating this series of sanitary conferences, the United States proved that that great nation is not only zealous for its own material and moral progress, but also for the advancement of the whole American Continent, and it is only fitting that we should now pay that country the homage of our gratitude for having placed under its high patronage this international and permanent work.

Therefore, the Argentine Republic is gratified at taking part in this task, and will contribute, through our modest collaboration, in the study and solution of sanitary problems, so that America shall be, not only an emporium of wealth and a garden of natural beauties, but also the healthful, good, pleasant and generous continent, always open to the fruitful activities of all industrious men of the world. But however great may be the satisfaction of the Argentine Delegates for associating in this noble work, it is not as great as their gratification for being able to realize it now under the auspices of the Chilean Government in this hospitable country, to which our people are bound by ties so old and a most deep affection.

Personally, the Argentine Delegates, already bound by affection and respect to all the eminent men here assembled, and, very specially to the Chilean physicians, hygienists and public men, express their enthusiastic wishes that this Conference may produce not only new ideas concerning sanitary questions, but also and above all, practical, easy and efficient solutions tending towards the achievement of the higher degree of welfare, health, and happiness in all the countries of America. And we undertake the task with enthusiasm and energy, in community of aspirations with the illustrious of all the American countries, who we fraternally embrace under the egis of this wise and progressive Government and in the midst of this strong, energetic and intelligent people.

The Delegate from Bolivia, Dr. Claudio Sanjinés. Mr. President of the Republic; Mr. Minister for Foreign Affairs; Mr. President of the Conference; Messrs. Delegates: Having been selected to represnt Bolivia before the Fifth International Sanitary Conference of the American Republics, it is my high honor to bring personally the cordial greetings that the Bolivian Government and people send to the Chilean Government and people.

And to me, personally, this occasion means the happiness of returning, after a few years' absence, to this beautiful section of the American continent, the land where I spent the best years of my life, on a mission of concord and affection; to meet again my eminent professors and my dear companions, with whom and together with the distinguished Delegates from the American Republics, we will now undertake to solve the problems that affect the suffering humanity. What a great work! What a satisfaction to contribute in it!

I believe that there is nothing nobler than to work for the dissemination of hygiene, for the eradication of epidermis, and to make of each nation a healthful home, free from evils, and hereby capable of progress upon the basis of health and strength.

I think that my Government in designating me as its Delegate to this Conference did not have in mind the scientific training with which every one taking a seat among you should be provided; I believe that I was selected merely because I pursued my medical studies here in Chile; and this is precisely the reason why I have accepted a mission so difficult as well as honorable.

In closing, I make fervent vows for the success of the labors that we inaugurate to-day

The Delegate from Brazil, Dr. Ismael da Rocha. Mr. President of the Republic; Mr. Minister for Foreign Affairs; Messrs. Ministers; Mr. President of the Conference; Messrs. Delegates: The medical Delegates from Brazil, my esteemed colleague and myself, here present, with the valued permission of Dr. Ferreira, our Minister Plenipotentiary near this Government, rise to present you the sincerest and most cordial greetings that we bring from the President of the United States of Brazil, Marshall Hermes da Fonseca, and from Baron de Rio Branco, our beloved Minister for Foreign Affairs, two eminent personalities, who now renew their salutations through our medium, together with the expressions of the very old friendship that bind the people of Brazil with the people of Chile. In the name of Brazil, I also greet with the greatest consideration and

esteem all the diplomatic representatives from the countries of America, Europe and Asia, and very specially the illustrious Delegates from the American Republic. You may believe that my Brazilian heart vibrates with the throbbings of extreme joy that I felt upon touching the hospitable soil of Chile.

These Conferences, happily initiated by the United States Government in Washington in 1902 and 1905, continued in Mexico in 1907 and in San José de Costa Rica in 1909-10, and now in Chile, assemble the hygienists of North, Central and South Americas to study the protection and prolongation of human life, by means of the supreme, eternal and superhuman effort of medicine for the purpose of averting death and desolation. These Conferences enliven and stimulate men of science in that intellectual transfusion among men devoted to the same labors and researches, collaborating in the great task of conciliating the spirit of friendship among peoples; in that necessary and progressive international American fraternization. This is the idea that brought us to this privileged soil; which idea also inspires the wise Government that guides the destinies of Brazil, "generous and fertile soil, industrious and peaceful people," which entertains great hopes from the pacific seeds planted for the future, "progressing rapidly, without deviating from its traditions of liberation and without violating the rights of others." "It is indispensable," said the illustrious Baron de Rio Branco in the Latin-American Congress of 1905, "that before half a century, four or five, at least, of the most important Latin-American Nations, following the example of our great sister of North America, through a noble emulation, should rival the most powerful States of the world in point of resources and prestige."

This Continent, whose territory stretches uninterruptedly from north to south, from the Arctic Pole to the southern extreme of the world; this Continent, which from its extensive and endless coasts, both on the Atlantic and the Pacific, overlooks an immensity of heaven and sea, with an unbroken horizon, absolving from the framy waves and inhaling from the echo of the mountain ranges and the balmy forests, the pure sentiments inspired by nature; this continent, which has the privilege of possessing the three greatest and most wonderful basins of the Occident, formed by the Mississippi, the Amazon and the River Platte, to-day fully opened to the world's commerce; this continent, which with the religion of Jesus in all its nationalities, shows sublimely and altruistically to the generations the Christ of the Andes and the Statue of Liberty in the Port of New York; this continent, so vast, which without transposing its domains, finds the bear of the Pole in the glacial zone and the butterfly of the tropics in the picturesque gardens of the torrid zone; this continent, with volcanoes in its highest peaks, and flexible leaves in the virgin forest or in the graceful palm trees growing near its placid beaches; this continent, which has gathered under varied climates different races in process of transformation; this continent, I say, this America of ours can not retrograde; it can not think of extermination nor death; it must by all possible means increase its strength, so that it may say to the nations over the seas: Oh, glorious and beautiful Europe, we owe thee everything, as a son owes everything to his parents; we owe thee

our discovery, our first steps, our civilization and our commerce and the industrial development of our resources. But thine children have grown. Behold them, strong and powerful, and trusting on the peaceful struggle of the lofty ideals of humanity. Chile, which has given the world this admirable example through its never-disturbed peace, shall be one of the first countries on which that glory shall fall, in addition to those which it has already won. And I have the greatest pleasure in exclaiming, long live Chile!

THE DELEGATE FROM COLOMBIA, DR. ALCIBÍADES VICENCIO. Gentlemen: The Republic of Colombia, in honoring me with its representation, cordially participates in the labors of the Fifth International Sanitary Conference.

The discovery of the continent in which we live was hailed as a blessing to humanity; a blessing of wealth because of the treasures hidden in its soil; a blessing of beauty because of the splendor of its peerless nature; a blessing of life because of its immense and fertile territory. We are the lords of this privileged continent; we are Americans, and upon us falls the responsibility that our name implies. The different countries here represented, upon uniting their effort to defend life and insure the welfare of their citizens, giving the science of medicine the leading part to which it is entitled in the social and international movement of the peoples, prove the high degree of their culture, and show that they feel strongly the close ties of solidarity now binding men to each other. In the name of the Republic of Colombia, I express the hope that, for America's good, success will crown the noble effort that this Conference means.

THE DELEGATE FROM CUBA, DR. HUGO ROBERTS. Mr. President of Chile; Messrs. Ministers; Messrs. Delegates; Gentlemen: I have the honor to greet you in the name of the Cuban nation. The Republic of Cuba takes a deep interest in all sanitary matters; in those belonging to its interior régime as well as in those concerning its relations with other nations; and it is our fondest desire that these Conferences may strengthen the ties of union among American Republics, so that we may love each other as true brothers; and that they be also beneficial to humanity in general.

Cuba hopes that the idea born in our minds may soon be converted into positive facts.

THE DELEGATE FROM ECUADOR, DR. LUIS FELIPE CORNEJO Y GÓMEZ. Mr. President of the Republic; Mr. Minister for Foreign Affairs; Messrs. Diplomatic Representatives; Mr. President of the Conference; Messrs. Delegates; Gentlemen: Honored with the representation of Ecuador before the Fifth International Sanitary Conference of the American Republics, I fulfill the pleasant duty of greeting, in the name of my country, the glorious Chilean Nation in the person of its illustrious President, His Excellency Dr. Ramón Barros Luco, under whose auspices this Conference is held. At the same time I extend my respectful greetings to the distinguished members of the learned sanitary assembly here gathered.

In view of the highly humane purposes pursued by the Sanitary Conferences that are being held periodically by the various countries of America, it is to be hoped that the present one will be as the others

preceding, plentiful in efficient and wise resolutions tending to the welfare of each and every country of the Continent.

THE DELEGATE FROM THE UNITED STATES OF AMERICA, DR. GREGORIO M. GUITERAS. Mr. President of the Republic; Messrs. Ministers; Messrs. Members of the Diplomatic Corps; Mr. President of the Conference; Messrs. Delegates; Ladies and Gentlemen: In the name of the United States of America and of the Delegation of that Republic, I have the distinguished honor of greeting Chile and its representatives, as well as the other delegation of our sister Republics of the Western Hemisphere.

Having arrived here a few days before this Conference was called to order, I have enjoyed the opportunity of observing a little of this country, and I can assure you that these observations have charmed me and aroused my admiration for a country where human work has overcome the obstacles presented by nature, originating by reason of those very obstacles, the existence of a Latin race, virile and moral, which for its civic spirit and culture can be favorably compared to any other nation in the whole world. Unfortunately, the Chilean race is not properly known in our country, a fact due mainly to the distance separating us. If the people of both countries knew each other better, they would like each other better, and I hope that the day is not far when the ties of friendship now binding us will be closer for the good of both Republics.

In the name of the United States, I thank you most expressively for the distinguished and truly warm welcome accorded us from the moment we landed on Chilean soil, at the port of Arica, until arriving at Santiago, the beautiful capital of Chile.

THE DELEGATE FROM GUATEMALA, DR. SALVADOR ORTEGA. Mr. President of the Republic; Mr. President of the Conference; Ladies; Messrs. Delegates: The Government of Guatemala, which has taken a great interest in the International Sanitary Conferences of the American Republics from the time they were initiated, has entrusted us with the honorable mission of representing it before this learned assembly which, as in previous occasions, will solve many of the important sanitary problems that are to have a powerful influence on the welfare of all the peoples of America.

The pomp and solemnity with which the sessions of the Fifth International Sanitary Conference are being inaugurated are evident proofs of the support that this prosperous country gives to everything that means progress and advancement. May we be permitted on this solemn occasion to present to His Excellency Sr. Ramón Barros Luco, the worthy chief of the Chilean Republic, in the name of our President, Sr. Estrada Cabrera, the fervent vows that President Barros' personal happiness, and to tender the fraternal greeting that Guatemala sends to the heroic people of Chile.

Mr. President of the Conference; Messrs. Delegates: The Delegation from Guatemala presents you their respects, and wishes you the best success for your important labors.

THE DELEGATE FROM MEXICO, DR. JESÚS MONJARÁS. Mr. President of the Republic; Mr. Minister; Mr. President of the Conference; Messrs. Delegates; Ladies and Gentlemen: It is a high honor and

a great satisfaction for me to greet the people and the Government of Chile in behalf of the people and Government of Mexico.

Without hesitating, I accepted the invitation to represent my country before this Conference, notwithstanding the necessity of separating from my family and my interests, because I feel an immense pleasure at finding myself once more among my friends, and as a guest of this intelligent, noble and hospitable people whom I so love; and because of the satisfaction of contributing within my modest ability to the realization of the matters that are to be studied here for the purpose of securing rules for the uniformity and harmony of international sanitary measures, thus facilitating the progress of the peoples constituting this vast continent, and providing easy and practical means of avoiding the transmission of infectious diseases.

It is particularly gratifying for me to express on this solemn occasion my sincerest wishes for the success of this Conference, for the prosperity of this noble and great nation, for the happiness of His Excellency the President of the Republic and Madame Barros Luco, of the Delegates here present, of the Executive Committee, and of the noble and distinguished Chilean ladies.

THE DELEGATE FROM PANAMA, DR. CAUPOLICÁN PARDO CORREA. Mr. President of the Republic; Mr. President of the Conference: Messrs. Delegates; Ladies and Gentlemen: The Government of Panama, a country which characterized itself by its efforts in behalf of hygiene, stirring on account of the advance made and which has placed it among the American countries that have become prominent in this respect, has conferred upon me the honor of representing it before the Fifth International Sanitary Conference, charging me also with the pleasant duty of presenting its cordial greetings to the Government and people of Chile, and to the Delegates from the other Republics, its sincere best wishes that this Conference may be as useful as the preceding ones, and it may contribute to strengthen the ties binding us.

THE DELEGATE FROM PARAGUAY, DR. ROGELIO URIZAR. Mr. President of the Republic; Gentlemen: From Paraguay, my country, I convey to the noble and gallant people of Chile a cordial greeting of confraternity; to the Government the sentiments of friendship from the Paraguayan Government; to the charming Chilean ladies, the just admiration of a people that knows how to pay homage to grace and beauty; and in the persons of my fellow delegates I greet the beautiful American continent.

It is the first time that Paraguay takes part in the International Sanitary Conferences, but I cherish the firm conviction that hereafter its participation will be very active, since its climate and geographical situation place under very favorable conditions for a prophylactic campaign.

I could not but accept with true satisfaction this beautiful mission of confraternity and scientific labor, which affords me the opportunity of becoming acquainted with the native soil of my ancestors and of meeting the medical authorities of this continent.

The important labor that assembles us here has already begun to bear fruit, and when the railroads crossing the frontiers shall have

at last united us, the laws formulated by these Conferences will be the highest expression of our culture.

THE DELEGATE FROM SALVADOR, DR. JUAN B. MIRANDA. Mr. Minister; Messrs. Delegates; Gentlemen: An evident sign of culture and progress is this gathering of scientific men now assembled here from almost all countries of America for the purpose of discussing and uniforming sanitary principles, to resolve and adopt hygienic measures of international scope calculated to prevent the propagation of contagious diseases of an epidemic, endemic, or pandemic nature, and to forstall the deathly damages that such evils cause among the inhabitants of this continent, for which a brilliant future is in reserve. Nobly contributing to the realization of these beautiful ideals of altruism, a civilizing task is performed, and the interests of the great human family are best served.

In keeping with these noble and lofty purposes is the honor that has been conferred upon me by the Government of the Republic of El Salvador, designating me as its Delegate to the Fifth International Sanitary Conference of the American Republics. To all this and to his personal qualifications is due the marked interest which the President of Salvador, Dr. Manuel Enrique Araujo, takes in this assembly and hopes for its success, he, himself, being a most distinguished physician and a thorough Central-American. Not only does President Araujo bind his warm affection to the happiness of the nation over which he presides, but also to the welfare of Central America, of that of the New World, which may be considered as the common fatherland of all those who have had the honor of being born on American soil.

The Government of Salvador adheres to the resolutions passed by previous Sanitary Conferences; it will adhere to such amendments, changes or revisions that may be made thereto, and it will also adhere to the new resolutions that are to be adopted by this Conference. It shall lend its loyal support to everything that may be resolved, and shall not omit any sacrifice that may be needed in order to carry out efficiently all sanitary measures for the preservation and welfare of humanity.

Therefore, in the name of the Government of Salvador, I have the honor to perform a triple mission: First, to present my respectful homage to His Excellency the President of Chile for the high patronage to this assembly of public hygiene; second, to congratulate and applaud the President of the Conference, Dr. A. del Rio, and through his medium, all the members of the Chilean Delegation for the efforts they have displayed to secure the success of the Conference; and, third, to send a cordial and affectionate greeting of professional comradeship and solidarity to all my distinguished fellow-delegates.

THE DELEGATE FROM URUGUAY, DR. ERNESTO FERNÁNDEZ ESPIRO. Mr. President of the Republic; Mr. Minister for Foreign Affairs; Mr. President of the Fifth International Sanitary Conference: In the first place, the Uruguayan Delegation thanks the Chilean Government for the kind attentions extended to us from the moment we arrived at the beautiful land of a traditional culture.

The participation of Uruguay in past Conferences, and the interest showed therein by its sanitary authorities and those devoted to the study of hygiene, account sufficiently for its alherence to the purposes of this new Conference and its representation before it.

For us, who fulfill the pleasant mission of conveying to the Government of this country the affectionate greetings of the Uruguayan Government and our best friendly wishes, it is a source of true satisfaction to attend this Conference, which enjoys the fortune of gathering the representatives from almost all the American Republics. Its success, which may already be assured, shall confirm once more the good results of this periodic meeting and shall justify, at the same time, the advisability of continuing them and of securing for the future the attendance of all American countries, because everyone of them should be equally interested in the deliberations of these Conferences and the enforcement of their resolutions.

Gentlemen, Uruguay contributes to this meeting with the work which it has carried out with regard to sanitation during the last few years, and although it does not pretend to have solved all the problems of sanitary science, it is in a position to say that it has found a solution for many of them, and it will find it for other problems, since that is the aim of the Government and authorities of the Republic. The Uruguayan Delegation will have occasion during this Conference to dwell further on its report and to explain the organization and operation of the sanitary services of the Republic and the enforcement of the recommendations of previous Conferences.

Meanwhile, it predicts that this new meeting will have the best results, thanks to the ability and learning of our colleagues of this country and of the other Republics here represented.

The Delegate from Venezuela, Dr. Pablo Acosta Ortiz. Mr. President of the Republic; Mr. President of the Conference: We, the Delegates from Venezuela, in fulfilling the mission which has been entrusted to us, perform the duty of presenting, in the name of our Government, a cordial greeting to the Government of Chile, and our warmest wishes for the prosperity and aggrandizement of the great Chilean nation, which now extends to us its courteous hospitality, offering us the best bread from its granaries and the best wine from its vineyards.

The honor has been conferred on us again of forming part of this Conference, whose high deliberations tend to make the conquests of modern sanitary science uniform and practicable, and upon congratulating ourselves and our colleagues we trust that the definite resolutions of this Conference shall take mutual respect as the standard, and shall be inspired from equity and justice, the only elements which render friendship permanent and sincere, and which make strong and closer the ties binding the American nations.

SECOND DAY—MONDAY, NOVEMBER 6, 1911.

Morning Session.

The session was called to order at 10:30 A. M., the Provisional President, Dr. Alejandro del Río, presiding, all the foreign Delegates being present and nearly all the members of the Chilean Delgation.

THE PROVISIONAL PRESIDENT. In accordance with the program, this session is for the object, in the first place, of electing the President of the Conference. By designation of the Supreme Government, it has been my honor until this moment to have charge of the work, in lieu of our bereaved and beloved President of the Supreme Council of Hygiene, Dr. Maximo Cienfuegos.

It would be gratifying for me to surrender these high duties, because there are in this Conference distinguished personalities with greater merits than mine.

DR. ARAOZ ALFARO. In the name of the Argentine Delegation, and believing that I am also interpreting the wishes of the other Delegations here present, I move that a vote of applause be given to the executive committee for its wonderful organization of this Conference. And to signify this vote, I ask all Delegates to rise. (The motion was unanimously carried and all the Delegates rose.)

I also move that Dr. Alejandro del Río be made the permanent President of the Fifth Conference. Nobody better than he, who has been the organizer of the preliminary work, could discharge the position with greater efficiency. This motion is also made to include the confirmation of Dr. Amunátegui as Secretary and the other Delegates as members of the Executive Committee.

(This motion was carried by acclamation.)

DR. FERNÁNDEZ ESPIRO. I move that the Conference pay a tribute to the memory of the eminent Dr. Cienfuegos, elected President of this Conference, and to this end I have the honor to propose that the Delegates rise in homage to our bereaved colleague. (The motion was carried by acclamation and the Delegates rose.)

THE PRESIDENT. I thank the Delegates most expressively for the high honor they have conferred upon me by electing me as the President of this Conference. I must now refer to a slight irregularity that might perhaps affect the resolutions we may pass now, although such an irregularity is only a matter of form.

The credentials presented by the Delegates were delivered last Saturday to the Under-Secretary for Foreign Affairs, who will return them in a short while to have them referred to the special committee that is to be appointed for the purpose of passing upon them. Therefore, we will not be definitely constituted at this session. At this afternoon's session we may give approval to our actions at this session.

It is now in order to elect the Secretary.

DR. OLIVER. Dr. Araoz Alfaro already made a motion to that,

which was carried. This being the case, I think it is not necessary to vote again. On the other, nobody better than the provisional Secretary could perform those duties, because the transactions and all documents must remain here. If necessary, I make a formal motion to confirm Dr. Amunátegui in that position.

THE PRESIDENT. If all the Delegates agree, the proposition of the Uruguayan Delegate will be carried. (General acceptance, and Dr. Amunátegui then takes possession of his seat as Secretary.)

THE SECRETARY, DR. AMUNÁTEGUI. I beg leave to thank my distinguished colleagues most sincerely for the honor they have bestowed upon me. At the same time, I request the President to move that one more Secretary be appointed, who should be one of the foreign Delegates, as has been customary. I take the liberty to submit the name of Dr. Razetti, who filled the same position in the last Conference. (The proposition of Dr. Amunátegui was carried by acclamation, and Dr. Razetti took a seat at the President's table, and thanked the Conference.)

DR. FERNÁNDEZ ESPIRO. With regard to the designation of Vice-Presidents, the rule followed in previous Conferences has been to elect as such all the Delegates who had attended. If this procedure is acceptable, I would move that it be followed also on this occasion.

THE PRESIDENT. The list of Delegates will be read in case there is any remark to be made. With regard to the proposition of the Delegate from Uruguay, I think it is well to remember that several Delegations are composed of more than one member. If the assembly deem it advisable, in such cases only one of the members should be designated as Vice-President.

(The motion of Dr. Fernández Espiro, with the amendment suggested by the President, was carried unanimously.)

THE SECRETARY, DR. AMUNÁTEGUI, then read the list of Delegates which appears on page 5. He afterwards announced that Dr. Iglesias, Delegate from Costa Rica, and Dr. Valenzuela Valdés, of Honduras, had not yet arrived.

DR. VIAL. As a Delegate from Chile to the last Conference, and therefore in a position to know the procedure followed on former occasions, I move that a third secretary be appointed, who should be a member of the United States Delegation. I propose that Dr. James Perry be appointed as such. (The motion was unanimously carried.)

THE PRESIDENT. In view of the decision of the Conference, Dr. Perry is also designated as Secretary. There will now be read the list of Delegates whose names are submitted as Vice-Presidents of the Conference. (The list was read and the Delegates named elected as Vice-Presidents by unanimous vote.)

THE PRESIDENT. It is now in order to appoint the various committees. The Secretary will read a list that has been prepared for submission to the Conference. I request the Delegates to make such remarks as they may deem proper.

THE SECRETARY, DR. AMUNÁTEGUI, read the list referred to, which appears on page —, as subsequently modified.

DR. FERNÁNDEZ ESPIRO. I have no remark to make to the list

as read, with the exception that the President of the Conference be added to the Executive Committee. (This motion was unanimously carried.)

Dr. Ferrer. I would that the assembly appoint a committee of three or four Delegates to study the list just read and in this afternoon's session to recommend the addition of such names as were not included—perhaps on account of lack of time—and who it may be advisable to appoint on account of their particular specialities.

Dr. Fernández Espiro. The just desire manifested by the Delegate from Chile might be well met in this manner: That each committee, by its own action, should be enabled to decide which other members of the Conference might be added to it.

Dr. Vicencio. Perhaps it would be more advisable to let the Delegates join whichever committees they might be more interested in.

Dr. Ferrer. I believe that Dr. Fernández Espiro's suggestion meets the difficulty better. I accept it, so far as I am concerned, and withdraw my motion.

Dr. Vicencio. This matter might go over until this afternoon's session, and the committees as proposed by the President could be appointed now.

Dr. Alfonso. Both propositions are compatible, so, I think, the two could be accepted.

Dr. Araoz Alfaro. The motion of the Delegate from Uruguay is conciliatory, and could be accepted right now.

(The motion of Dr. Fernández Espiro was carried unanimously.)

The President. The program of this session is complete.

The session adjourned at 12 M.

Afternoon Session.

The session was called to order by the President, nearly all the Delegates being present. With the President sat Dr. Araoz Alfaro, of the Argentine Republic, and Dr. Sanjinés, of Bolivia, in their capacity as Vice-Presidents of the Conference.

The minutes of the morning session were read and approved.

The President. We should begin our labors with the reading of the reports of the various Delegates. Following the alphabetical order, the first place belongs to the Argentine Delegation. Dr. Alvarez has the floor.

Dr. Alvarez. The delegation of which I am a member has prepared four reports, which it has the honor of presenting to the Conference. One deals with the defense against cholera; another with plague; another with the campaign against malaria in the Argentine Republic, and the fourth one with compulsory vaccination.

Dr. Monjarás. I deem it advisable that the order established by the program should be followed. In this respect, in my opinion, we should begin with the first subject of the program, which refers to "the laws of sanitary police and sanitation measures adopted in each country since the Fourth Sanitary Conference," and then continue with the other subjects in their proper order. Afterwards, the report should be open for discussion.

Dr. Guiteras. I agree with the Delegate from Mexico as to the

enforcement of the order established by the program. But I was also under the impression, or at least such is the interpretation given by the American Delegation, that each Delegation should present a résumé or abstract, destined to explain to the Conference the manner in which the resolutions adopted in former Conferences have been complied with, and that afterwards the reports on the special subjects included in the program would be read.

Dr. Monjarás. The subject referred to by the American Delegate is included in the program, but it is the second thereon and not the first. It is true that the program that has been distributed among us is merely provisional, but it must be followed until a permanent one be adopted.

Dr. Araoz Alfaro. The Delegation of which I am a member has not been able to bring a general résumé because this is the first time that the Argentine Republic takes part in these Conferences; but instead, it presents various papers on special subjects included in the program. As to precedence for the consideration of subjects, that the Delegate from Mexico thinks is prescribed by the regulation of the Conference, I understand that there is no calendar compelling the assembly to postpone one subject for another one. If my understanding is correct, as I think it is, I will say that we are at liberty to take up several subjects in such order as may seem to us most advisable, or only a few of them and not all.

In this particular, the Argentine Delegation places itself entirely at the command of the assembly. Therefore, if the Conference resolves to take up the résumés, this Delegation will gladly postpone the presentation of its report until such time as may be set therefor.

Dr. Razzetti. We should bear in mind the second recommendation attached to the provisional program, which is as follows:

2. Each delegation shall present a paper or report which shall deal precisely and necessarily with the sbject marked out in this program, and also a concise extract of the same to be read within fifteen minutes' time at the sessions. Each extract shall be printed in Spanish and English; that of Brazil in Portuguese and English, and that of Hayti in French and English.

Therefore, when for the present session the reading is announced of the reports of each Delegation, it is meant, of course, that the assembly will hear and consider extracts or résumés and not the report in full, whose reading could not be made in the space of fifteen minutes.

Dr. Araoz Alfaro. I repeat that the subjects included in the reports of the Argentine Delegation are in accord with the provisions of the program announced for this Conference. Therefore, the only thing to be decided upon is whether the papers that we have prepared should be taken up at this session or at another one.

Dr. da Rocha. Acknowledging that the Delegate from Mexico is perfectly right in his remarks, and that the Delegate from Venezuela has properly and pertinently reminded us of an important point, at the same time, I think that the Argentine Delegates have complied with their mission most fully, because their papers are strictly confined to the subjects assigned to this Conference.

Dr. Fernández Espiro. I agree with Dr. Monjarás' view that in the absence of a resolution to the contrary, which has not been passed, the Conference should proceed in accordance with the provisional program. But there is a decisive circumstance for not strictly applying the regulations on this occasion. This circumstance has been invoked and deserves the consideration of the Conference. Dr. Araoz Alfaro has said that this is the first time that the Argentine Republic participates in these Conferences, and, for this reason, its Delegates can plausibly disregard the practice heretofore observed and the existence of a program previously adopted. Those of us who have attended former Conferences have borne in mind this antecedent, and for this reason the Uruguayan Delegation has dealt with most of the subjects prescribed, and has also made an extract of its reports so that their reading may be limited to the time allowed. But the position of the Argentine Delegates is different, and it seems to me that the Conference could not dispense with the reading of the reports they have prepared. As an act of courtesy, I would move that the Argentine Delegates be given the floor so that they may read their report.

Dr. Sanjinés. The Bolivian Delegation finds itself in the same position as the Argentine Delegation.

Dr. Soza. At a former Conference, in which I was present, there was, as in this Conference, a provisional program indicating the subjects. The permanent program is adopted by the Conference, if it so deems advisable.

Dr. Araoz Alfaro. The reports of the Argentine Delegation might be taken up after the other Delegations have read the extracts they have made. The Argentine Delegation would be pleased to see this procedure adopted.

Dr. Ferrer. In previous Conferences, the strict compliance with the provisional program was not required. It is sufficient to glance at the transactions of those Conferences to see that a great number of the papers read were not adapted to the previous established previously. Sometimes a report included all the subjects, and other reports included only one or some of the subjects. This procedure may not be quite regular, but for obvious reasons it should not completely be proscribed.

Dr. Fernandez Espiro. I think the point raised has been sufficiently discussed, and I believe that the incident could be closed to the satisfaction of all if we adopt the following motion which I submit to the Conference:

> The Delegations of the different countries participating in this Conference are allowed to read their reports even if they are not strictly in accord with the regulations of the Conference.

(A vote was taken and the motion unanimously carried.)

The President. I wish to ask the Conference a question. As I believe to have understood it, the Mexican Delegate opines that the subjects should be taken up independently and separately. That is to say, that each Delegation will be given the floor to deal with the first subject only.

SEVERAL DELEGATES. No, Mr. President, there should be no limitation.

THE PRESIDENT. Very well. I will then give the floor to each Delegation to read its report, whether it be complete or not.

DR. MONJARÁS. I will give the President the explanation he desires. If the complete reports are long, the Delegates should read extracts, the reading of which shall not take up more than fifteen minutes. When the fifteen minutes are up, the President should grant the floor to another Delegate. This, I think, is the order which should be followed.

THE PRESIDENT. As the regulations and the program are only of a provisional nature, I request the assembly, if it should deem it advisable, to give them a permanent status.

(This motion was unanimously carried.)

THE PRESIDENT. Dr. Alvarez has the floor.

DR. ALVAREZ read the report which appears on page 77 of the Appendix.

(On motion of Dr. Fernández Espiro the Argentine Delegation was allowed additional time to proceed with its interesting reports.)

(Another report of the Argentine Delegation, on compulsory vaccination was left over for a subsequent session.)

THE PRESIDENT. I would like to know if the Conference wishes to take up the immediate discussion of each report, or if it prefers to leave it until after all the reports have been read. I move that the latter procedure be adopted, because it offers the advantage of taking up the discussion of a certain subject—malaria, for instance—after all the reports thereof have been heard.

(This motion was carried, and, consequently, the discussion was postponed until the reading of the reports was over.)

DR. ROBERTS. Dr. Alvarez, in his report on cholera, stated that there is in the Argentine Republic a corps of bacteriologists, and that a suspected ship arrives the examination of the individual is made. That examination, as I understand, is made during the trip and also upon arrival at port. I wish to know if the physicians who make the examination on board ship are employed by the Argentine Government or by the respective navigation company.

DR. ALVAREZ. They are employed by the Argentine Government.

DR. MONJARÁS. I would like to know what do the bacteriological examinations on board consist of. It is important to know if they are bacterioscopical examinations of the baccilü, or if the examination of agglutination is made.

DR. ARAOZ ALFARO. They include both things.

DR. ALVAREZ. I am at the disposal of Dr. Monjarás to furnish him the details regarding the examinations.

DR. ARAOZ ALFARO. I will advance the information that all necessary means are employed in order to reach a diagnosis as rapidly as possible.

THE PRESIDENT. The Delegate from Bolivia has the floor.

DR. SANJINÉS read the report given on page 81 of the Appendix.

DR. GUITERAS. I would like to know what disease is that upon which the Delegate from Bolivia has reported under the name of *espundia.*

Dr. Sanjinés. It is Briebás bubo. Concerning this disease and its treatment, I will say that I have treated with success some cases of *espundia* in the legs, by means of rasping and cauterization. Those afflicted with *espundia* in the fauces generally die of tuberculosis. At present there are two physicians in Bolivia who employed the 606 injections in the sections of the country infested with this disease. According to the reports they have sent to the Government they obtain saisfactorily results with this treatment, except in causes where the fauces are affected. I myself have employed the same injections with similar results.

Dr. Razetti. In Venezuela we have recently began to experiment the 606 injection with the same purpose. A soldier who had been subjected to the treatment improved within 12 hours. In another case the eruption disappeared immediately after the first injection.

Dr. Urízar. In Paraguay this disease, there known as *buba,* occurs under some peculiar symptoms, and with no little frequency it appears in the northern yerba mate groves and in the Brazilian rubber plantations, bordering with the Oriental regions of Bolivia. As a general rule, the disease begins by affecting the hand or the foot, through the bite of ticks, flies and other insects and worms, and is then manifested by ulcerations with fleshy irregular borders, of the size of a dollar. Many patients are cured by cauterization, or rasping followed by cauterization. In obstinate cases, after a period varying between three and four months, the disease attacks the soft palate or the nasal fossae. It is the stage of specific localization, which follows that of generalization. This stage of generalization is a rule short and irregular. In some cases it is manifested by symptoms common to septicaemia. In other cases those symptoms are accompanied by the apparition of ulcerations in different parts of the body; these latter symptoms I know only from what I have read of them in descriptions of the disease written by Argentine, Bolivian and Brazilian authors. Of cases that have come under my observation, none have shown other localizations than those in the nose and the soft palate. As to the nature of the disease, I do not agree with the opinion of the Bolivian Delegate. I have colored a great many preparations, I have innoculated various species and cultivated in several forms, and I think I have the assurance that it is not tuberculosis, as Dr. Sanjinés opines, but a disease due to an infection whose agent is still unknown and which is probably transmitted through insects which bite men in those regions (ticks and bot-flies).

The President. The Delegate from Brazil has the floor.

Dr. da Rocha. In behalf of the Brazilian Delegation, I submit to the Conference several printed volumes, to wit: Historical sketch of the public health services of Brazil, specially in the city of Rio Janeiro, during the century 1808-1909; Sanitary laws and regulations in force in Brazil, Medical emergency service in Rio Janeiro; Yearbook of demographic-sanitary Statistics, published in 1910 by Dr. Casio Razende, of the General Bureau of Public Health; and the Commemorative Bulletin of the National Exposition of 1908. (Dr. da Rocha then read the report appearing on page 87 of the Appendix.)

Dr. Araoz Alfaro. On behalf of the Argentine Delegation I wish to congratulate the Brazilian Delegation for the splendid work it has presented, which includes all the subjects of the program. At the same time, and although the Brazilian Government has already been congratulated for the sanitary works done, especially in Rio de Janeiro, thanks to which yellow fever has been eradicated, I would ask my esteemed colleagues to send again a vote of applause to that Government, I would also move that the Conference adopt a vote to place the Brazilian physician Dr. Oswaldo Cruz among the benefactors of humanity. (Unanimous demonstrations of acceptance.)

Dr. Monjarás. Being acquainted with Dr. Oswaldo Cruz's work, I wish that it be expressly stated in the minutes that the Mexican Delegation adheres to the vote proposed by the Argentine Delegation.

Dr. da Rocha. I request that special mention be made in the minutes of the deep appreciation of the Brazilian Delegation for this courteous and honoring manifestations addressed to our Government and one of the most eminent men of our nation.

Dr. Maira. I have been requested by the Director of the Sismological Institute, don Fernando Montesús de Ballore, to invite the Delegates to visit the Santa Lucia Observatory.

(The session adjourned.)

THIRD DAY—TUESDAY, NOVEMBER 7, 1911.

Afternoon Session.

The Conference was called to order by the President Dr. Alejandro del Rio, nearly all the Delegates being present. By invitation of the President, Dr. da Rocha, of Brazil, and Dr. Vicencio, of Columbia, sat at the presidential table in their capacity as Vice-Presidents of the Conference.

The minutes of the previous session were read and approved.

Dr. da Rocha submitted to the Conference a map of Brazil showing the sanitary ports of the Republic.

The President. Gentlemen, I have the honor to introduce to you the distinguished representation of the Pan-American Union, Captain Granville R. Fortescue, who honors us with his presence. I move that he be admitted to the sessions. He will deliver in due time a greeting from the Pan-American Union, of which he is the bearer.

(The motion of the President was unanimously approved.)

The President. I also have the honor to introduce to you the honorable Delegate from Costa Rica, Dr. Fernando Iglesias, who, on account of difficulties in the transportation, was delayed in his arrival. The Delegate from Costa Rica has the floor to deliver the greeting from his country.

Dr. Iglesias. Gentlemen: It is an honor and a sincere pleasure for me to send a warm greeting to the Government and the medical profession of Chile. I come to this hospitable and generous land full of faith and gratifying hopes. Now that I find myself in the midst of this vigorous people, which is justly proud of having produced so many eminent men and illustrious physicians, my admiration for it increases. Debts of gratitude bind us to the Chilean Nation. Costa Rica does not forget them. In the name of my country I greet you.

Dr. Iglesias, Dr. Roberts, Dr. Cornejo, Dr. Guiteras, Dr. Bianchi, and Dr. Monjarás read their respective reports, in the order named (see the Appendix, pages 97, 101, 107, 121, 113, and 115, respectively).

The President. A new list of the Committees has been drawn up. The changes made in the list previously approved consist merely of the addition of new members to some committees.

The Secretary, Dr. Amunátegui. The Committees, with the new members, are now constituted as follows. (See page 6.)

Dt. Guiteras. If I remember rightly, a Committee on Resolutions was appointed for the purpose of considering the different motions presented before submitting them to the Conference. I would like to know if these functions are to be exercised by the Executive Committee.

Several Delegates. Yes, sir.

The President. It is understood that the consideration of the motions is to be made by the Executive Committee.

Dr. Araoz Alfaro. It seems advisable that such reports as have been read be referred to the Executive Committee, so that it may in turn assign them to the proper committees.

The President. Are the reports to be submitted also, or only the motions? I believe that the consideration of the reports would take too much of the Executive Committee's time, and it may even be impossible. The chair would ask the Delegates having motions to submit, to send them in written form to the secretary.

Several Delegates. Very well, we shall do so.

The President. It is then agreed that the Delegates will present the motions in the exact form in which would have the Conference adopt them.

The committees will be called to-morrow so that they may begin their labors.

(The session adjourned at 5.15 p. m.)

FOURTH DAY—WEDNESDAY, NOVEMBER 8, 1911.

Afternoon Session.

The Conference was called to order by the President at 2 P. M., nearly all the Delegates being present. By request of the President, Dr. Iglesias, of Costa Rica, and Dr. Roberts, of Cuba, sat at the presidential desk in their capacity as Vice-Presidents of the Conference.

The minutes of the previous session were read and approved.

THE PRESIDENT. Yesterday, late in the evening, Dr. José R. Campos and Señor Tito V. Lizoni, received the credentials accrediting them as Delegates from the Dominican Republic to the Conference. Those credentials have been referred to the respective Committee. Meanwhile, following the rule established in other Conferences, said gentlemen are temporarily recognized as Delegates.

DR. FERRER. Mr. President, I would request you to propose that the name of Dr. Guiteras, the distinguished Delegate from the United States, be added to the Executive Committee. I consider his presence in that body as necessary in a large measure. He is fully familiar with the subjects before this Conference and in direct touch with the International Bureau of Washington with which will, undoubtedly be related many of the resolutions to be passed by the Conference.

THE PRESIDENT. I am really suprised to hear the suggestion of the Delegate from Chile, as Dr. Guiteras' name was included in the list that was prepared to propose the personnel of the various committees. It has simply been an omission in copying. I thank Dr. Ferrer for the opportunity he affords me for amending the error. If there is no objection, Dr. Guiteras' name will be added to the Executive Committee.

(The motion was unanimously carried.)

THE PRESIDENT. To continue with the reading of the reports, I will request the Delegate from Panama to take the floor.

DR. PARDO CORREA. Mr. President, I am sorry to find myself placed in a necessarily difficult position, because I am wholly unable to furnish any information in accordance with the program of the Conference. The Republic of Panama had appointed another representative who was unable to leave in due time; but as the Government did not want to be absent from this Conference, Panama having always taken an active participation in the previous meetings, and zealously tried to comply with its resolutions, succeeding in placing the country upon an advantageous sanitary condition, requested me by cable to assume its representation. Also by cable, I have received the proper authority to take part in the proceedings and votes. I repeat that I regret my inability to report to the Conference on the subjects under consideration, I can, however, give the assurance that Panama shall adhere to every measure, every resolution tending to benefit the hygiene and health of the countries represented.

Dr. Urizar and Dr. Oliver then read, in the order named, their respective reports (see pages 119 and 153).

The President. The Delegate from Venezuela has the floor.

Dr. Razetti. The Venezuelan Delegation, in compliance with a provision of the program submits a lengthy report and also a résumé or extract printed in English and Spanish. Besides in accordance with that recommendation, this procedure seems highly useful, because the mere reading of the report is not sufficient to give an exact idea of the informations, plans and propositions advanced. Under such circumstances, many of the listeners can only obtain an incomplete and passing impression, whereas a publication enables all to act with precision and to participate in the discussions and to vote in a manner duly deliberated. (He then read the extract, and afterwards distributed copies thereof as well as several printed volumes containing comprehensive information on the different subjects dealt within the report. (See Appendix, page 159.)

The President. The Delegate from Colombia has the floor.

Dr. Vicencio. I have not as yet received the report that is being prepared in my country, but I have requested that it be sent directly to Washington, and I hope it will reach in time to be inserted in the book containing the transactions of the Conference.

The President. The Delegate from Salvador has the floor.

Dr. Miranda. I am not in possession of complete data to report upon the different subjects of the program. He then read several papers. (See Appendix, page 111.)

The President. Dr. Vial, a member of the Chilean Delegation has the floor.

Dr. Vial. The report of the Chilean Delegation is not strictly in accordance with the program in so far as the order of the subjects is concerned, but all of them are discussed with the due attention and with the all possible care. (He then read the printed report, copies of which were distributed. See page 91.)

Dr. Cornejo y Gómez. I move that the Conference adopt a vote of applause to the distinguished Chilean Delegation for the brilliant and complete report which it has submitted.

Dr. da Rocha. Warmly applauding the motion just presented, and as a compliment thereto, I request that record be left in the minutes of the good impression that the Brazilian Delegation has experienced upon visiting the Institute of Hygiene, and acquiring a close knowledge of Chile's scientific medical service.

(These motions were carried by acclamation.)

The Secretary read the report of the Committee on Credentials. (See page 72.)

Dr. Guiteras. In regard to that report, I would like to elucidate one point. I would move that it be distinctly understood that Mr. Fortescue is not a Delegate to the Conference. He has been granted the privilege of the floor, but not as a Delegate. I understand that Mr. Fortescue's admission does not in any wise alter the established rule.

The President. A mistake has evidently been made in the report,

which will be rectified. At a previous session I invited Captain Fortescue to take the floor. I now reiterate the invitation, of which he may avail himself at such moment which he may deem opportune.

I think it is now in order to have the committee constituted so that they may start their work. I would request the Delegates to present their motions so that these may be referred to the respective Committees to be reported upon and submitted to the Conference for discussion.

Dr. Guiteras. It being in order, as I understand from the invitation of the President, to present now the motions or proposed resolutions, I would like to know if they are to be presented to the Executive Committee.

The President. No, sir. The motions must be presented to the Conference and they may drafted briefly. Then they referred to the proper Committees. I believe this is the most practical way.

Dr. Guiteras. Then, in accordance with the President's statement, and with his permission, I will submit a motion.

(Several Delegates read the motions they had prepared. See Appendix.)

A discussion followed as to the presentation, procedure and deliberation of the motions, following rules being adopted by unanimous vote:

1st. The Delegations shall submit their motion in writing to the Secretary before the next session, or in the beginning of said session. They may draft the motions briefly, reserving the right to submit lengthier drafts.

2d. The motions, according to this nature, shall be referred to the proper Committees which shall report to the Conference, recommending the adoption in the original or amended form, of the rejection or postponement thereof. Motions not coming under the jurisdiction of any Committee shall be referred to the Executive Committee.

3d. For the discussion of the reports submitted by the Committees, the Conference shall follow the order of subjects prescribed by the program. Within said, the motions shall be discussed in alphabetical order of countries represented.

4th. In the discussions, the limitation of time shall be strictly observed, as established by the regulations, and the order of the program shall be followed.

5th. All motions, after having been discussed, shall be referred to the Executive Committee, which, after revising and confronting them, shall submit the same to the definite vote of the Conference. The Executive Committee may consolidate two or more similar motions into one single resolution, and propose the elimination of repeated or inconsistent motions. The reports from the Executive Committee shall not be subject of discussion. The votes shall be taken by aphabetical order of nations.

The Secretary, Dr. Amunátegui transmitted to the Conference an invitation extended to the Delegates by Señor Joaquín Cabezas, Director of the Institute of Physical and Manual Training, to visit the establishment.

(The session adjourned at 4.30 P. M.)

FIFTH DAY—THURSDAY, NOVEMBER 9, 1911.

Afternoon Session.

The Conference was called to order by the President, Dr. Alejandro del Rio, at 2 P. M., nearly all the Delegates being present. By request of the President, Dr. Cornejo, of Ecuador, and Dr. Guiteras, of the United States, sat at the presidential desk in their capacity as Vice-Presidents of the Conference.

The minutes of the last session were read and approved.

THE PRESIDENT. I have the pleasure to grant the floor to the Dominican Delegation.

SEÑOR LIZONI. In behalf of the Dominican Republic, I have the pleasure to wish this great assembly the best success for its important labors. At the same time, I wish to assure you that the Government of that nation will make it its duty to adopt and comply with the resolutions that may be passed. I regret my inability to report upon the subjects prescribed in the program, as I have received neither a report nor sufficient data.

THE PRESIDENT. The Chair has just received the credentials accredited Señor Oscas Valenzuela Valdés as Delegate from Honduras. Said credentials have been referred to the proper committee. Meanwhile, following the established procedure, Sr. Valenzuela Valdés is temporarily recognized in his capacity as Delegate. As he is not present now, I shall avail myself of the first opportunity to offer him the floor for the customary salutation.

DR. FERRE. In behalf of the Chilean Delegation, I submit a motion which I do not doubt will be accepted by the Conference with pleasure. The day before yesterday, there was inaugurated in Paris by the French Minister for Foreign Affairs, the Universal Sanitary Conference. It is only natural that this American Conference should send a greeting to that of Paris, in view of our affinity of object and purposes. I move, therefore, that the President be authorized to transmit in behalf of the Conference a message of greeting addressed to the Minister for Foreign Affairs of France, or to the proper officer.

(The motion was unanimously carried.)

DR. GUITERAS. I wish to ask the Delegate from Chile if he is sure that the Paris Conference has been inaugurated. I was under the impression that that Conference had been postponed a second time.

DR. FERRER. It was inaugurated yesterday or the day before by one of the members of the French cabinet.

DR. GUITERAS. Very well; I thank the Delegate from Chile for his information.

The reading was then taken up of the different motions presented by the Delegations, as follows: Argentine Delegation, 3 motions; Bolivian Delegation, 2; Brazilian Delegation, 1; Colombian Delegation, 1; Cuban Delegation, 4; Ecuadorian Delegation, 1; United States

Delegation, 3; Paraguayan Delegation, 1 motion and 2 propositions; Uruguayan Delegation, 1; Venezuelan Delegation, 1. The Chilean Delegation presented several motions, as follows: 5 signed by the President, Dr. del Rio; 1, by Dr. Ferrer; 1, by Dr. Astaburuaga; 1, by Dr. Soza; 1, by Engineer Illanes, and 2, by Dr. Amunátegui.

Some of the Delegates took the floor for the purpose of formulating their motions or explain their scope and significance.

(The motions were referred to the respective committees, and they appear in the Appendix.)

Dr. Araoz Alfaro, in behalf of the Argentine Delegation, presented an extract of reports previously submitted to the Conference by said Delegation.

The President. In accordance with the regulations, it is now in order to undertake the discussion of the different subjects of the program, in their numerical order.

(A short while after the consideration of the subjects was begun, the Conference decided to abandon this procedure because it was deemed of little advantage and that it was more useful to proceed with the discussion when the motions were considered.)

Upon suggestion of Dr. Fernández Espiro, it was decided that two sessions should be held on the following day (Friday), one at 9:30 A. M. and another at the usual time, 2 P. M.

(The session adjourned.)

SIXTH DAY—FRIDAY, NOVEMBER 10, 1911.

Morning Session.

The Conference was called to order at 10 A. M. by the President, Dr. del Río, nearly all the Delegates being present. By request of the President, Dr. Ortega, of Guatemala, and Dr. Monjarás, of Mexico, sat at the presidential desk in their capacity of Vice-Presidents of the Conference.

The minutes of the previous session were read and approved.

More motions were submitted by Dr. Monjarás, Dr. Roberts and Dr. Manterola. They were referred to the respective committees. (See the Appendix.)

Several committees reported upon the motions referred to them, and the discussion of their reports was taken up in the order and manner below stated.

The Committee on Chronic Contagious Diseases reported favorably upon Dr. Urizar's motion on leprosy.

Dr. Corbalán Melgarejo. I believe to have understood that it is recommended that the Governments adopt measures for the eradication of leprosy. If such is the meaning of the proposed resolution, I would like to state my doubts as to whether this subject would come under the jurisdiction of the Conference, because it is not a matter of international sanitary police requiring the imposition of quarantine or preventive measures. A patient arriving at a port, disembarks or remains on board but the vessel is always received. The matter is a subject for regulation only in so far as the policing of immigration is concerned. Every country may defend itself against leprosy or other contagious diseases in general, but with measures of purely local nature. In Chile the passage of a law is contemplated prohibiting the introduction of foreigners sufferings from chronic contagious diseases, and ordering that they be returned to the country of origin.

Dr. Urizar. I wish to explain the meaning and scope of my proposition in view of the remarks by the distinguished Delegate from Chile. The motion does not imply an international sanitary provision. Its purpose is not to induce Governments to enact laws of that kind. It is simply to advise the Governments of countries where leprosy prevails to compile statistics for the purpose—quite natural and necessary—of ascertaining the number of lepers, the places where they live, etc., which data will help in devising the means conducive to the eradication of the disease and facilitating the study of its etiology. Undoubtedly, the prophylaxis of this disease has been and shall be a matter of wide discussion, for the very reason that affecting chronic patients it is difficult to prescribe that they be deprived of their liberty, systematically. But the proportions that leprosy is assuming, justify and render indispensable the recommendations that I propose, which

refer to the internal legislation of each country, which could adopt them, employing its means, according to its customs and capacity.

Dr. Guiteras. The measures recommended by the proposition in question, are undoubtedly plausible enough, but I understand that all countries have already adopted such measures. In the report of the American Delegation, there is stated what the United States have done in this particular. In my opinion, all the countries of the American continent have advanced enough to see the advisability of enforcing measures of this kind.

Dr. Alvarez. Leprosy prevails in the Argentine Republic and I accept the motion in view of the necessities of my country. We have not complete leprosy statistics and have not yet enforced isolation measures. It was only recently that it was decided to establish a leper asylum in Entre Rios for the purpose of isolating there those that have been at liberty.

Dr. Roberts. I will inform in regard to what is done in my country. Leprosy prevails in Cuba and we have leper asylums. Every leper must be isolated in those establishments, unless it is proven that he has the means to be isolated and attended in his own home in such a way that it will not constitute a menace to society. A leper having the means to do so, does not isolate himself properly, is forcibly confined.

Dr. Araoz Alfaro. I am going to supplement the information furnished by my distinguished co-Delegate, Dr. Alvarez, by adding some data. Although these statistics are very incomplete, it may be established with certainty that there are more than three hundred cases in the Argentine territory, located specially in certain districts of Corrientes and Entre Rios. A year ago there was held in Buenos Aires a National Congress on Leprosy, and among the measures proposed by the Congress there is the establishment of a leper colony in an island of the first-named province. In my opinion, the motion in question might be amended, but I agree with the idea, and I abstain from suggesting any amendments.

Dr. da Rocha. I agree with the proposition of the Delegate from Paraguay, and I accept it. In Brazil we have in force measures to that end, which in some States, as Sao Paulo and Rio de Janeiro, are very stringent.

Dr. Corbalán. In view of the explanations given by the Delegate from Paraguay, and understanding now perfectly the meaning of his motion, I shall give it my vote.

Dr. Monjarás. The motion now being discussed, comprises several points of importance. The first refers to what the national governments may do, and to this end the Fourth Conference adopted a resolution which confines itself to recommending the different governments that they "adopt such measures as they may deem advisable." To take into consideration a standpoint of greater importance, I will say that the defense against leprosy has two aspects, to wit: the defense within the country and the defense to prevent leprosy from being introduced from any nation. In Mexico, Cuba and the United States lepers are not admitted upon arrival at a port or at the frontier, and likewise they are not permitted to leave the country. In this way

the international side of the question is disposed of. With respect to the interior of each country, it is obvious that all governments can adopt such measures as they may see fit. My opinion would be that we merely refer to what was resolved by the Fourth Conference.

Dr. Urízar. My motion refers in the first place to the compilation of complete statistics by each country, not only as a national measure, but also for the purpose of ascertaining the extent of the propagation, which is very important from the scientific standpoint. Therefore, my proposition concretes and defines in a better way the recommendation made by the Fourth Conference to the governments, and to this end a mere reference to that recommendation would not be sufficient.

(There being no more Delegates desiring to speak on the subject, the discussion was ended at this piint. In accordance with the rules, the motion was referred to the Executive Committee.)

The President's motion on scleroma was favorably reported upon by the respective committee, and there being no discussion thereon, it was referred to the Executive Committee. (See Appendix.)

Dr. Araoz Alfaro. This disease is unknown in many countries.

Dr. Roberts. It exists in Cuba, but the cases are few.

Dr. Ortega. It is very frequent in Guatemala, in comparison to other acute diseases; the same is true of Salvador.

The President's motion on the regulation of prostitution was favorably reported upon by the Committee on Prophylaxis. (See Appendix.)

Sr. Alfonso. It has been generally believed that the regulation of prostitution is a scientific means of limiting the ravages of venereal diseases. But, as the Delegates know, eminent authorities on syphilology have reached the conclusion that it is not worth while to adopt such a regulation. I submit this idea to the consideration of the Conference; in fact, this thesis, which offhand seems rather extravagant, is worthy of being taken into consideration after one has studied the reasons upon which its authors base their opinion.

Dr. Monjarás. In Mexico, the regulation of prostitution has been in force for many years. There has been taken a statistical table of the propagation of venereal diseases by registered persons, that is to say by those whose names are recorded in the books kept for that purpose—and by persons who in Mexico are called *ambulantes* (peddlers), and that operate clandestinely. This table has shown in an evident manner that the greater the clandestinity the larger the number of cases. Well-to-do patients are asked how they contracted the disease, and through their answers the woman is looked for, and most times we find that she also is suffering from the same malady. In other instances we find that the disease has been acquired in a house, and upon investigation it turns out that it was communicated by a clandestine woman. As a rule the physicians have observed that the regulation of prostitution is beneficial.

Dr. Bianchi. I do not think that it is not pertinent for me to argue in favor or against regulation. I only want to say that the regulation of prostitution in women is not sufficient. It would be

necessary to include men in the procedure suggested by Dr. Monjarás, because a man can at intervals transmit the infection. I think that long as our customs do not permit the enforcement of a really scientific regulation, it is better to confine the campaign to the popularization of the methods of individual prophylaxis. At any rate, this Conference, which is in a way something like the Supreme Court of Hygiene in America, should not declare itself openly for or against regulation until the great hygienists of the world shall have reached an agreement on the subject.

Dr. Sanjinés. In Bolivia, prostitution has recently been regulated in some cities. In my opinion, the immediate isolation of the patient should be required, and no patient should be allowed to trade until she has been cured. I would add that strict persecution of clandestine prostitution be recommended.

Dr. Araoz Alfaro. I believe that, as a whole, the proposition is well termed. In the Argentine Republic the regulation has been in force for a long time, and it may be said that it is so now even in the smallest cities. In accordance with the opinion of Drs. Monjarás and Sanjinés, that regulated prostitution is less dangerous. As the manner of the regulation, the Conference, in my opinion, should not pronounce itself. In Chile they speak of isolation; in the Argentine Republic we have tried both systems, that is to say, isolating the patients or letting them free, not to trade but to cure themselves in their own homes. In accordance with the statement of the Delegate from Guatemala, it would be advisable, both from the moral and scientific standpoint, that the investigation be made applicable to men also; but, of course, this is quite difficult from the practical standpoint.

Dr. da Rocha. In Brazil this is a question under consideration, because we want to make the defense against the disease consistent with individual liberty. Personal defense would perhaps be more effective than a strict regulation.

Dr. Roberts. As stated in the report of the Delegation, regulation is enforced in Cuba. Statistics show that venereal diseases are more frequent where clandestine prostitution prevails. Oftentimes it happens that when a registered prostitute feels sick she undertakes to operate clandestinely. The inspection of houses of prostitution is made twice a week. A night dispensary has been established for the treatment of men, as stated in the report. This dispensary is resorted to by men who, on account of their financial situation, can not bear the expenses of medical attendance, or who by reason of their occupation can not be treated in day time.

Dr. Manterola. I support the proposition of the Chilean Delegation. Through investigations made by Dr. Astaburuaga and myself, it has been ascertained that in this country, also, particularly in Valparaiso, what Dr. Monjarás has said is true, that is to say, that clandestine prostitution causes more damages than public or regulated prostitution. I believe, as the Guatemalan Delegate does, that regulation should be extended also to men who communicate the infection. At any rate, it seems to me that women should have the right to demand the examination of the man who communicated the disease. The mere fact that the man pays does not give him the right to cause such a damage.

Dr. Corbalán. I accept the motion proposed by the President. Many times I have examined in my office men who contracted the disease from women who traded with a clean bill of health. It is therefore necessary that there be a competent, careful and honest corps of inspectors.

The President. I am going to say four words in order to explain the motive of my proposition. I am well aware that in every country there are men who favor and others who oppose the idea of regulation of prostitution. But the truth is that in order that regulation, in countries adopting it, may be efficient, it is necessary that it be enforced under certain requirements, and the necessity of such requirements should be emphasized, because if they are not complied with, the regulation is then deceiving and dangerous. It is, of course, necessary that the inspection should be made by competent physicians. This suggestion may seem paradoxical, but the truth that such a service should be in charge of specialists. In many cities in Chile the examination of prostitutes is made at their own houses. Such a commission is not in keeping with a physician's dignity, aside from the fact that he can not be provided with the proper means for such an examination. We all know that the diagnosis of syphilis is sometimes difficult.

For these reasons I have moved that it be recommended that the inspection be made by specially prepared physicians, and in dispensaries or polyclinics. As in many cases it is necessary to make a microscopical examination of the spirochaete and the gonococcus, there should be a laboratory annex where it could be made properly.

Dr. Astaburuaga. In the regulations governing prostitution an age limit is generally prescribed for women engaging in the trade, which age is about eighteen years. But Dr. Manterola and I have observed in Valparaiso that a great number of prostitutes there have not attained that age, specially those who peddle in the streets looking for clients. I consider that this point should be taken into consideration and a solution given thereto.

The President. The Executive Committee will take up this subject and submit to the Conference in definite form.

(The motion under discussion was referred to the Executive Committee.)

Dr. Soza's motion on tuberculosis, having been favorably reported upon by the respective committee, was then taken for discussion. (See Appendix.)

Dr. Araoz Alfaro. In nearly all the countries there are antituberculosis leagues. In the Argentine Republic there is a very important, whose Director is Dr. Emilio Coni. Accepting the motion, I would like to know if what is proposed is the appointment of an official commission.

Dr. Soza. I have explained all my ideas on the subject in a pamphlet that has been distributed among the Delegates. In many countries, in France, for instance, there is a considerable number of associations against tuberculosis, but as they operate without any concerted action, they do not accomplish the results desired. They act as soldiers without a chief. An eminent French author has said that the money is

being thrown away without any profit whatever. The purpose of the motion is, therefore, to make uniform the action of these associations by combining the efforts. On the other hand, the Governments would be free to act according to circumstances and in accordance with the means of action at their disposal.

Dr. da Rocha. In Brazil, as in many other places, there are leagues of that kind, but without a special jurisdiction over them. This is a municipal matter in that Republic, but the Federal Government renders financial help which sometimes exceeds 170,000 pesos. A federal tax has been levied on banks, the products of which are devoted to that purpose.

Dr. Fernández Espiro. I second Dr. Soza's motion, because in my opinion it tends to overcome difficulties in some countries where there are various organizations with the same purpose but independent from each other. (He then stated what is done in Uruguay in this particular.)

Dr. Manterola. I also support the motion.

(The motion was referred to the Executive Committee.)

The motion presented by Dr. Razetti on malaria having been favorably reported upon by the Committee on Malaria and Yellow Fever, was then brought up for discussion (see Appendix).

Dr. Razetti. In an annex to the report of the Venezuelan Delegation, the Delegates will find the conclusions reached by the Simla Conference, in which a very complete and interesting study was made of the means for the eradication of malaria, such as the destruction of mosquitoes by draining lands, pouring kerosene oil, etc. The conclusions of that Conference, which was attended by the most eminent physiciansof England, will be of great service in intertropical countries for a systematic campaign against malaria.

Dr. Araoz Alfaro. Malaria is so widely distributed throughout the American Continent, that everything that refers to its eradication has in my opinion a great collective interest. Therefore, I second with enthusiasm the proposition of the Venezuelan Delegation; but as I do not know in detail the conclusions of the Simla Conference, I shall confine myself to outlining briefly what is done in my country. In the Argentine Republic we have an area of nearly 400,000 square kilometers—out of a total of 3,000,000—affected by malaria, generally of a mild nature, few acute cases occurring and without cachexia. The law that is now being enforced provides for all forms of prophylaxis enforced in the most advanced countries, especially Italy, where, as we all know, there are experts who advocate quinization only, and others who favor the fight against mosquitoes. In my country the methods in use are: Preventive quinization and curative treatment of patients; fight against mosquitoes (mechanical protection of patients; drainage of swamps; elimination of stagnated waters; petrolization and mechanical protection of waters; fumigation and destruction of mosquitoes, etc.) Besides, it is proposed to make anti-malarial education in the schools as wide as possible. I would like to know if the proposition of the Venezuelan Delegation includes something more.

Dr. Razetti. The measures outlined by the Argentine Delegate are the basis which, among others, may be adopted for the eradication of

malaria. The meaning of the motion is confined to the fight against mosquitoes—because it is not sufficiently practical to accomplish the desired result. It is necessary to combine all means, and this is what the Simla Conference did, which Conference has sanctioned the fight against mosquitoes, education of the people, quinization, etc. We, instead of devising the plan of campaign, should adopt what is already done, recommending it to the interested Governments. This is the object of the motion now under discussion.

Dr. Perry. Measures that may be applicable to a certain locality might be impracticable in other places. Therefore, the adoption of different methods would be advisable. The measures adopted in Panama, in the Canal Zone, are the same as those in common use in other countries. The procedure consists of attacking the chain at its two ends, man and mosquito. A way of destroying mosquitoes, explained in detail in a publication that I have issued, is to catch the insect in traps adequately arranged. This means facilitates the calculation of the amount of mosquitoes in a certain locality, which is a very important data in determining the seriousness of the danger caused by malaria at that point.

Dr. Sanjinés. The measures recommended in the motion will be of great interest in Bolivia, and, therefore, I accept it with much enthusiasm.

Dr. Guiteras. An important means of ascertaining the existence and extent of malaria would be to provide that all cases that may occur should be reported to the sanitary authorities. In report of the United States Delegation mentio nis made of the States of the Union—still very few—yhere it is compulsory to report all cases of malaria, typhus and other communicable diseases.

Dr. Ferrari. In measures employed in Brazil to fight malaria, the principal object is the destruction of mosquitoes, but it is not indeed the means resorted to. For instance, four years ago the Municipality of Rio Janeiro enacted measures of protection for laborers employed in the canalization of waters, in order to prevent the apparition or increase of the disease. The works of the Maderia Mamorë Railroad had to be abandoned because malaria used to decimate the laborers employed in the construction. At present the work has been renewed by an American Company, which applies preventive and curative measures; not only the destruction of mosquitoes, but also quinization and other means which have been recommended as more efficient and practicable.

(It being considered that the motion had been sufficiently debated, it was referred to the Executive Committee.)

The President conveyed to the Delegates an invitation from the Mayor of Valparaiso, to visit the water works of Peñuelas. (The invitation was accepted by the majority.)

The session adjourned at 12 m.

Afternoon Session.

The Conference was called at 3:30 p. m. to order by the President, Dr. Alejandro del Rio, nearly all the Delegates being present. The

President requested Dr. Pardo Correa, Delegate from Panama, and Dr. Urízar, from Paraguay, to seat with him at the presidential desk, in their capacity as Vice-Presidents of the Conference. The minutes of the previous session were not read, as they were not yet ready, but the Chair was authorized to approve them.

On motion of Dr. Guiteras it was resolved that in discussing the different motions only their authors and the Delegates wishing to object to them be allowed to speak thereon.

Several new motions just delivered at the Secretary's office were read and referred to the respective committees.

The Committee of Yellow Fever submitted its report on the motions of Dr. Guiteras and Dr. Roberts, on yellow fever, without recommendation. (See Appendix.)

Dr. Guiteras. At the present time, the opinion on the transmission of yellow fever is very different from that of years ago. Formerly, it was considered that when a person had suffered an attack, a repetition would very seldom take place. Now it is said that a person may live ten years in an endemic place, go to immune countries ,and contract the disease a second time upon returning to.the endemic place. An eminent English authority has made very interesting studies on the subject, and his investigations show that the mere fact of having resided for ten years in an endemic locality can not be taken as constituting sufficient immunity.

Another point: A place is considered as endemic even if very few cases of the disease appear therein. Supposing that there occur in a port only ten, or five, cases during one summer, in the tropics that place would be considered as an endemic locality. It is possible to consider that one can live for a long time in an endemic place without coming in contact with the mosquito; and it is also possible one can, without taking any precaution, spend many years without contracting the disease. Possessing the present knowledge on yellow fever, I consider that a sensible person and therefore exercising some case in order to guard himself can live quite confidently in an infected locality without fearing the disease. By taking precautions one can avoid the bite from a mosquito. Nowadays, exactly the same is true of yellow fever as it is of cholera. One can live in a place infected with cholera without contracting the disease; all that is necessary to boil—or to reach only a certain degree to kill the Koch baccilu—eatables and beverages. I am really of the opinion that there should be no immunity declared against yellow fever; but since the subject is mentioned in the Washington Convention, we should take it into consideration. Of course, we should take the most advanced point possible, as would be case of fever reported by a competent physician who knows the disease.

Dr. Roberts. The subject under discussion is quite simple, and undoubtedly all the Delegates have already formed an opinion. The question at issue is merely to decide, for practical quarantine purposes, of protracted residence in an endemic focus can be taken as constituting indemnity, even if the individual has not suffered from the disease, as is now the rule in Cuba, United States and Mexico. We must bear in mind that the motion deals with the subject of the program, referring

to immunity from yellow fever from the standpoint of quarantine. It is true that from a theoretical standpoint, immunity is something that can not be conclusively assured. But in Cuba, where yellow fever has been endemic for a long time, the statistics show that after six years it is very seldom that one contracts the disease. Every foreigner, when contracting the disease, acquires it before completing six years of residence. And the same is true of natives contracting the *borras* fever, which is etiologically considered as yellow fever. There is no doubt, of course, that sometimes one may live in an endemic focus and yet not acquire immunity; but the number of cases in which such a thing might happen is so insignificant, that I do not believe there is any danger worthy of being taken into consideration; on this ground, I ratify my motion in the sense that, for the practical purposes of quarantine against yellow fever, a residence of ten continuous years in an endemic focus can be accepted as constituting immunity.

Dr. Monjarás. What is the point under discussion?

The Secretary, Dr. Amunátegui. It should be the report of the committee; but it happens that the committee has merely referred the two motions to the Conference, without making any recommendations.

Dr. Roberts. The case is very easily explained. There were two motions each favoring a different opinion, and as they had been submitted by two Delegates forming part of the committee, this body deemed it proper to abstain from making any recommendations.

Dr. Monjarás. There being no recommendation, we must discuss the proposition on the floor of the Conference. It is of vital importance to determine the question in one way or other, and this should be made from a practical standpoint, and avoiding the obstacles of an extreme attitude. Dr. Guiteras proposes that a certificate from a competent physician should be required; but such a procedure would present a serious obstacle, because we must first know who is competent.

Dr. Guiteras. I referred to the authorities, whose duty it is to watch over matters pertaining to public health.

Dr. Monjarás. It is assumed that public health officers are competent, even though in fact they may not be so. Perhaps a medical certificate, duly authenticated, is sufficient, even if the physician issuing it is not a public health officer.

Dr. Razetti. The idea that has just been stated there is a serious practical inconvenience. The physicians do not certify as a rule. Then again, the physician who attended a patient may have died, or absented himself at the time when a person wants to obtain a certificate from him. Or the patient himself may have changed his residence and is thus unable to secure a certificate from his physician. The health authorities of Porto Rico require the certificate. Thus, a person desiring to go there applies to any physician for a certificate stating that he has suffered from yellow fever. As a matter of fact, such documents, thus secured, are worth nothing. I believe that the fact of having resided a long time in an endemic place is more worthy of consideration.

Dr. Alvarez. But, such a man, such a passenger, does he constitute a danger to the home where he intends to go to?

Dr. Razetti. I believe he does not. If he is taken sick with fever, the sanitary authorities will isolate him. I do not believe that an individual should be refused admission into a country just because he has not suffered from yellow fever. An individual who has contracted syphilis is more dangerous. In a word, I do not attach any practical importance to a certificate.

(The subject being considered sufficiently discussed, the motions were referred to the Executive Committee.)

A report from the Committee on Prophylaxis of Acute Diseases, was then read, it being upon a motion by the Argentine Delegation proposing that the Governments be recommended to have school teachers learn how to vaccinate. The report recommended that the motion be rejected.

(There being no discussion it was referred to the Executive Committee.)

Another report from the same committee was read, recommending the approval of a motion by Dr. Sanjinés. (See Appendix.)

Dr. Vicencio. I would like to know if an error was made in the report of the committee in stating that only Brazil and Chile had no compulsory vaccination.

Dr. da Rocha. In some States of Brazil, as Sao Paulo, vaccination has been made compulsory; but it is not so in other States.

Dr. Guiteras. Compulsory vaccination in the United States exists only indirectly. For instance, children attending school must be vaccinated.

(The motion was referred to the Executive Committee.)

A report was then read from the Committee on Sanitation of Ports and Frontier Towns recommending the adoption, with slight modifications, of Sr. Illanes' motion on water supply and sewer system in towns. (See Appendix.)

(The motion was referred to the Executive Committee.)

Another report was read from the same committee, recommending the approval of a motion from Dr. Vial. (See Appendix.)

(There being no discussion, the motion was referred to the Executive Committee.)

A report was then read from the Committee on Plague, recommending the approval, with slight modifications of four motions submitted, respectively, by the Delegations from Bolivia, Cuba, and Paraguay, and the Chilean Delegate, Dr. Dávila Boza. (See Appendix.)

Dr. Roberts. In the motion by the Cuban Delegation, dessatization is provided for indemne ships and not for the contaminated ones. The program referred to the systematic dessotization, but not in case of plague. The recommendation had already been made by the last Conference, and experience has shown us that nothing is gained with mere recommendations.

Dr. Sanjinés. I accept with pleasure the amendment proposed by the committee to the motion. I was aware beforehand that, as customary, the assembly would word my motion in general terms. If a had made particular references in my motion, regarding specially the sanitation of the ports of Arica, Antofagasta and Mejillones, it was in order to emphasize my point, because in my capacity as Bolivian Dele-

gate it is my duty to prevent the invasion of infectious diseases into Bolivia. I am, therefore, pleased with the modification suggested by the committee, and I hope the Conference will accept the motion.

Dr. Illanes. I wish to give some information regarding the sanitation works in the ports of Arica, Mejillones, and Antofagasta, which bear relation to the proposition of the Delegate from Bolivia and the report thereupon, because of the reference made in said proposition to the ports I have mentioned. The Government of Chile devotes its best attention to the improvement of those ports.

In the contract for the construction of the Arica-La Paz Railway, provision is made for the laying of pipes for the conduct of the River Caracarami waters, taking them from a point 140 kilometers away from Arica. These waters shall be used, partly for the exploitation of the railway, and partly for the supply of the city and port of Arica, it being estimated that the capacity of the water supply will be 70 liters daily per inhabitant. Besides, in the plans for public works now under the consideration of Congress and which if passed would be operative next year, funds are appropriated for the sewer system and for the water supply works in the same city, which funds, together with those set aside for like works in the city of Tacna, will amount to 2,200,000 pesos.

In regard to Mejillones, the Supreme Government called for bids on the construction of water supply works and sewer system, but the proposals submitted were accepted because none of them met the requirements prescribed. The Supreme Government continues to pay attention to the construction of works of sanitation of that town.

In Antofagasta there is a water suppy system, owned and exploited by a private concern, but the Government is now bent on improving the service, by pranting new water concessions so that the supply may be increased. In the same city the Government is carrying on, by contract, the consideration of the sewer system and water supply for public use, which works will soon be completed.

In the plan for public works, to which I have just referred, provision is made for the construction of very important port works in Arica and Antofagasta which will contribute largely to the improvement of public health in those ports.

I wanted to give this information, Mr. President, for the benefit of the Delegate from Bolivia and by reason of the justified motives contained in the motion under discussion. If the Delegate from Bolivia should desire further information, I shall very gladly furnish him therewith.

Dr. Sanjinés. It is gratifying for me to state that I am highly satisfied with the explanations courteously given by the distinguished member of the Chilean Delegation; I shall be pleased to transmit this information to my Government.

(Without further debate, the motions were referred to the Executive Committee.)

The motions and the committee reports thereon having been and discussed, the debate was then taken up of the motions which the Executive Committee had decided to submit to the consideration of the assembly.

The Conference was first consulted as to two motions presented by Dr. Amunátegui. (See Appendix.)

The Delegates from Colombia and from the Dominican Republic abstained from voting. The Delegation of Salvador voted in the negative. All the other Delegations voted affirmatively. The motions were, therefore, approved.

Other propositions which were ready for submission to the Assembly were unanimously approved. (See Appendix.)

A report was read from the Committee on Cholera recommending the adoption of the resolutions appearing in the Appendix.

(There being no discussion, the motions were referred to the Executive Committee.)

Dr. Fernández Espiro. As in to-morrow's session, the Conference will select the seat for the next Conference, the Uruguayan Delegation has the honor to propose the city of Montevideo for that purpose.

Dr. Roberts. In the name of Cuba I have the honor to propose the city of Havana as the seat for the Sixth Conference.

The President. The board of Directors of the Medical Society has requested me to invite the Conference to a special session that it will hold this evening at which we will have the pleasure to hear the lectures to be delivered by our distinguished colleagues, Dr. Araoz Alfaro, of Buenos Aires, and Dr. Ferrari, of Rio de Janeiro, the former on cito-diagnosis, and the latter on small-pox.

Dr. Araoz Alfaro. I beg to submit a motion recommending the next Conference "the study of epidemic cerebro-spinal meningitis and of anterior transmissible poly-mielitis."

(This motion was referred to the Executive Committee.)

(The session adjourned at 4.30 p. m.)

SEVENTH DAY—SATURDAY, NOVEMBER 11, 1911.

Morning Session.

The Conference was called to order at 10 A.M. by the President, Dr. Alejandro del Rio, all the Delegations, except the Hondurean, being present. By request of the President, Dr. Ortega, of Guatemala, and Dr. Lizoni, of the Dominican Republic, sat at the Presidential table in their capacity as Vice-Presidents of the Conference.

The minutes of the penultimate session were read and approved.

THE SECRETARY, DR. AMUNÁTEGUI, transmitted to the Delegates an invitation from Sr. Justino Pellé to visit the model slaughterhouse of Valparaiso.

THE PRESIDENT. The representative from the Pan-American Union, Captain Granville R. Fortescue, has the floor.

CAPTAIN FORTESCUE. Mr. President and Delegates: I bring warmest greetings from the Pan American Union in Washington and felicitations with best wishes for a successful convention from my chief, the director general, Mr. John Barrett, than whom there is no more loyal supporter of Latin American interests.

I come to you not as a North American, but as a Pan American.

Lack of technical education forbids my addressing you to-day along the lines of the special and most important work which has called you here; that has been ably done by my esteemed colleagues, Drs. Gregorio Guiteras and J. C. Perry, whom we have heard with interest.

As you are good Americans first and scientists afterwards, I shall speak on a subject that should claim the interest of all Americans be they born in Chile or Colombia, Argentina, or the United States, Brazil, or Bolivia, or in any other of the sturdy nations of our hemisphere. This subject is the Pan American Ideal.

Those who have given thought to the progress of civilization can not but have been impressed with the rapid advance that has characterized the cause of humanity during the last 10 years, an advance which perhaps owes its greatest stimulus to the activity of the members of your profession. No longer is the cruel doctrine of the survival of the fittest tenable—now we advance the more humane theory of aid to the weaker, and those who through adversity, misfortune, or illness, find themselves handicapped in the struggle for existence, are not trampled under foot but instead receive the kind hand of brotherhood, which helps them to bear more equably their burdens. No longer do we see in our neighbor's misfortune the quickly to be seized opportunity for our own advancement.

The spirit of the age is what has been aptly called the Christian spirit, which, liberally interpreted, means that we must meet all men on the broad ground of unselfish consideration. Granting this gradual change which is being brought about by the force of public opinion

in the relations between man and man, why is it not a logical sequence to apply this principle to the relations between nations? Nations are but collections of individuals, having the same ambitions, passions, emotions of the unit human being, and thus it should follow that when the plane of thought of the members of society is brought to a higher level, when the necessity of mutual interdependence is generally recognized, the fellowship of nations should become a fact.

The fellowship of nations. That is the Pan American ideal. A joining together in bonds of mutual understanding of all the Republics of this half of the world. How are we to arrive at this much to be desired end? First, by promoting personal intercourse, by becoming better acquainted; and second, by letting the old hatreds die. We of the northern Republic must make the opportunity that will lead to closer relations with you of the Latin countries. This we will do with the completion of the Panama Canal. The stimulus to travel that is bound to follow this event can not but help leading to an era of good feeling. We will learn of your glorious history, your heroes, your magnificent resources, and your steady social and economic progress, while you will meet Yankees who do not worship at the shrine of the dollar. Not that I deprecate commerce; quite the contrary; commerce and comity are allied forces on the side of mutual better understanding.

It is known that trade is one of the best mediums by which it is possible to gain a correct appreciation of the other man's point of view. As such an appreciation is absolutely essential in order to combat the intolerance of ignorance, it is only natural that an institution which aims at the attainment of these ideal national relations that I have depicted should bend its energies to the promotion of every legitimate means of increasing commercial activity. And as a corollary to this trade movement there will be that most necessary work which is the chosen field of you gentlemen. In your positions as guardians of the health of the peoples it would seem that innumerable opportunities would present themselves wherein it would be possible to advance the Pan American ideal.

I may say here that without your aid, without the highest state of sanitation in all our ports, it would be impossible to develop new trade routes to their perfection. The fight against disease which you are so successfully waging has opened the door to worlds heretofore considered closed to the white man. The fever-stricken jungles that had been given over to the occupation of wild birds and beasts alone, will by the magic aid of sanitation develop into lands which will support the countless millions of future generations.

Again, sanitation has reduced the perils from disease in traveling to a minimum, it has raised the standard of cleanliness among all nations, and it has made for an advance in civilization by promoting the self-respect of those who practice its precepts. These are only a few of the results of your labors, but they have been strong causes in the promotion of the unity of nations.

The condition which I have placed as the second factor in bringing about the perfect understanding among the western Republics is "to let old hatreds die." It is a fact that our judgments of past events

as historically set forth have undergone many changes, and it is significant, in my country at least, that we are revising our history books. No longer is it considered necessary to breed bitter hate in the hearts of our school children against England because the soldiers of King George fought our forefathers. Again, the story of the four long years of civil strife, which divided my people in acrid antagonism, is now told with careful impartiality. Of course, the extreme partisan still lives; that is to be expected. But it is with a changed spirit that we read of those incidents which were wont to arouse our suspicions against all other countries, and made us look upon them as implacable rivals. Suspicion is the parent of much misunderstanding. Let us have done with it. The Latin American nations have a glorious historical heritage. From the days of early discovery, when those who came first suffered untold hardships, through the brilliant period that led to independence, the American has given proof of high standards of honor and bravery on many occasions. O'Higgins, Bolivar, San Martin, Sucre, and Washington are names ever enshrined high among the world's array of heroes.

But it is not only military records that spell the fame of the American Republics. "Peace hath her victories no less renowned than war," as has been proved by the record of achievement standing to their credit at The Hague Conference.

And if more proof were wanted to show that the Pan American nations stood shoulder to shoulder in the front rank of the world's peace movement, I would point to that monument which stands high up above the clouds of Uspallata, "The Christ of the Andes." A peace monument that puts before the world the unsurpassed example of the forbearance, the moderation, the unselfishness of two great nations. And there at the base of that statue is inscribed the words that should be the inspiration of all countries: "Rather that these mountains should crumble to dust than that nation should arm against nation." That is the Pan American ideal.

Señor Alfonso. Mr. President, Messrs. Delegates: It is not every day that we have the privilege of listening to such refreshing and comforting expressions. The remarks we have just heard are philosophy; they are benevolence; they are morality. There is an inferior consciousness of own interests that leads us to compete by vexatious methods with our supposed adversaries. But there is a superior realization of those very interests that leads us to discover the great harmonies that there may exist among the various interests of men, and to unite our efforts in the struggle against hostile nature, against vice, ignorance and error. This superior consciousness of human interests enlightens first in the minds of great men and great nations. What a great truth there is in that saying that "when the sun rises it shines first upon the hills."

The scientists, monarchs of mind, without scepter nor crown, outline the courses to be followed by humankind, and the advanced governments co-operate with them in the furtherance of the civilizing activities.

The natural development of our life offers by itself enough misery, trouble and pain, which we should not increase by antagonizing our-

selves mutually; on the contrary, such miseries, troubles and pains should stimulate us in uniting our hearts, minds and wills for the best sake of the welfare and improvement of humankind.

There is not an instant in the extensive history of the world in which the idea of progress has not continued to realize itself, in which the idea of progress has not been in execution in the midst of all activities of life; and of all progresses the most substantial and important one is the moral progress that irradiated from a cross at the hill of Calvary. As you have just heard, that moral progress has erected on the Andes the monument to the Savior which symbolizes the reconciliation and friendship of two sister nations. That moral progress is the greatest comfort and hope of humankind.

Science contributes in a very large measure to that moral progress, just as it sheds light upon our paths and guides our steps. Faith is the lever of that progress; I do not refer to a given religious faith, but to that faith that invigorates the spirit upon the consideration of all great ideals, and which creates heroic minds in the struggle for welfare. All is harmony; all is solidarity.

Material progresses that facilitate and improve life contribute towards such harmony and solidarity. Through innumerable difficulties, the Republic of our continent strive to consolidate their thoughts, their feelings and their destinies. The nature of historical events has accorded our great sister of the North an actual prominence, the acknowledgment of which is no obstacle to other regards and considerations, and it shall not be taken advantage of to the detriment of the other Republics, but for the sake of mutual solidarity and progress, specially when the titanic work of Panama shall have untied the Isthmian knot and united both oceans.

We have heard words of logical ideality and progress which invite us to rise of our hearts and minds. We are grateful for those words on account of their own value and of what they mean to the future.

(Several reports from the Executive Committee on different motions were then read. The text of the resolutions adopted appears in the Appendix.)

Dr. Araoz Alfaro. What was the outcome of the motion presented by the Venezuelan Delegation in regard to the prophylaxis of malaria?

The President. The Executive Committee did not submit it to the consideration of the Conference because it recommends the adoption of the Simla Conference, the text of which that body has not seen. Likewise, there are other motions which have not been approved by that Committee and have not been, therefore, submitted to the Assembly. The Executive Committee has taken such action on ground which it deemed sufficient.

We will now proceed with the designation of the place where the next Conference shall be held.

The Secretary, Dr. Amunátegui. Having consulted a large majority of the Delegates in regard to this point, I have the honor to move, on behalf of the Chilean Delegation, that the city of Montevideo, Uruguay, be selected as the place for the next meeting. (The motion is carried.)

Dr. Da Rocha. As I feel sure that I am voicing the desire of the Delegates, I have the honor to move that Dr. Fernández Espiro be appointed President of the next Conference.

(The motion is carried by unanimous acclamation.)

Dr. Roberts. I am sorry not to have been able to secure the floor beforehand. It was my desire to state that, having consulted the other Delegates and having convinced myself that the majority of them preferred to designate Montevideo, in deference to that desire, I intended to move that that place be designated by acclamation.

Dr. Guiteras. The U. S. Delegation had seconded the motion presented by Dr. Roberts to the effect that Havana be selected as the place for the next meeting, I must now say that it is with great pleasure that I accept the offer made by the Uruguayan Delegation.

The President. In view of the unanimous acceptance by the Delegations, the city of Montevideo is designated as the place for the next Conference.

Dr. Fernández Espiro. The Uruguayan Delegation, in behalf of the Government and in its own name, sincerely thanks the Conference for the honor conferred upon our capital city. It also thanks the Cuban Delegate, as well as the United States Delegate, for their kind words. I also express our appreciation to the Delegate from Brazil.

The President. It is now in order to appoint the members of the International Sanitary Bureau of Washington, and in this connection I have the honor to move that the honorable General Wyman be re-elected as the Chairman thereof.

(This motion was unanimously carried in the midst of prolonged applause.)

Dr. Guiteras. In behalf of the United States Delegation, I wish to thank the President and the Delegates for the honor they have conferred upon my nation and General Wyman re-electing him as Chairman of the International Sanitary Bureau of Washington.

I beg to add that General Wyman watches with the keenest interest the progress of this Conference. He has it at heart; he wished to attend it, but unforseen circumstances prevented him from having that pleasure.

The President. As my motion has been carried with the unanimous acceptance so expressively accorded it, I shall have the honor to advise General Wyman by cable. It is now in order to elect the six members that are to constitute the Bureau.

The Delegates then went into conference, to agree on the names to be voted upon, and upon returning, Dr. Araoz Alfaro presented the following list, which was approved by acclamation:

Dr. Oscar Dowling, of the United States of America.
Dr. Eduardo Licéaga, of Mexico.
Dr. Hugo Roberts, of Cuba.
Dr. Salvador Ortega, of Guatemala.
Dr. Luís Razetti, of Venezuela.
Dr. Alejandro del Río, of Chile.

Dr. Roberts. The Cuban Delegation thanks the Conference most sincerely for the honor it has conferred upon me. But I must state that there are in Cuba eminent scientists who can undoubtedly fill

that position with greater ability than mine, particularly Dr. Juan Guiteras, our Director of Health, whose name I had proposed for the place.

Dr. Cornejo. Referring to a motion that I had the honor to submit and which the Executive Committee did not see fit to report to the Conference, I request that the following statement be read into the minutes:

"The Ecuadorian Delegation submitted in due time a motion which, I suppose, has been taken into consideration by the Executive Committee, because yesterday there was approved a motion similar to my proposition which call the attention of the governments that signed the Washington Convention the necessity of harmonizing the maritime health regulations. But as neither in yesterday's session nor in to-day's, which is the last one, has it been reported to the Conference, I beg to state: That in submitting that motion, the Ecuadorian Delegation only had in mind to inform the Assembly the extreme sanitary restrictions to which the arrivals from Ecuador are subjected, to the detriment of our commerce, and without regard to the Convention of Washington. On the other hand, it is only proper that motions should be reported upon, whethey they be acceptable or not.

Perhaps, the motion by the Ecuadorian Delegation might be regarded as partial, that is to say, as not being couched in general terms. But in my opinion it is not so, because if the terms of said motion have some reference to the present situation in Ecuador, it could have been so worded as to meet the demands of the Conference. And a simple suggestion from the honorable Executive Committee would have been sufficient for the Ecuadorian Delegate to draft his motion in more general terms."

I have diverted the attention of the Conference with this statement in order to inquire if all the motions submitted, including mine, will appear in full in the book that is going to be edited in the United States, containing the transactions, resolutions and motions of this Conference. At any rate, I repeat that I wish that the foregoing statement be inserted verbatim in the minutes. Before closing, I will request the President to state whether or not the motions submitted by the Delegates are to be published in the transactions in their original form.

The President. The Delegate from Ecuador desires the statement he has just read to be inserted in the minutes. The Chair has no objection thereto, and has the pleasure to so order it.

Dr. Cornejo. I request the President to tell me whether the motions will be published in their original form.

The President. Regarding that point, I must say that the motions approved by the Assembly in accordance with the rules and with the practice constantly followed shall be promulgated in the shape given the mby the Executive Committee when reporting them to the Assembly.

Dr. Cornejo. I do not refer to the resolution of the Conference, which, of course, shall be published just as they may be passed. What I wish to know is whether the motions presented by the different delegates are to be inserted in the minutes in their exact original form,

whatever the action taken thereon. In my opinion, such an insertion would imply no inconvenience, but, on the contrary, it would serve to give a full and correct idea of the subjects discussed, and it would also help in the construction of the resolutions and other acts of the Conference.

THE PRESIDENT. With the explanation given by the Delegate, I understand that his desire is that the original motions should be inserted in the transactions as a matter of record, so they may serve to give a true history of the transactions, discussions and votes of the Conference. In that sense, the chair has no objection, but, on the contrary, it makes it a duty to move that the motions submitted be published in their original form in the transactions.

DR. CORNEJO. I thank the President, as I also thank the Executive Committee, which, although it abstains itself from submitting to the consultation of the assembly the motion that I presented, and to which I referred a few moments ago, it has approved it implicitly, because it withheld it on account of a matter of form.

THE PRESIDENT. Of course, the Executive Committee must see to it that all motions are couched in general terms, that is to say, that they should not have a local object in view and limited only to a country or two. Otherwise, the idea contemplated in the Ecuadorian Delegate's motion is within the strict observance of the Washington Convention.

DR. CORNEJO. Exactly; and I so state it in the remarks I have submitted in writing.

DR. ARAOZ ALFARO. I move that General Doctor da Rocha be designated to speak, in the name of all the Delegations, at the closing session that is to be held this afternoon. He will interpret faithfully our feelings and will express eloquently our appreciation of the magnificent hospitality and kindness that have been extended to us.

(The motion was unanimously carried.)

DR. DA ROCHA. Accepting the honorable commission with which I have been undeservingly honored, to express sentiments of the Delegations upon taking farewell, I request that special mention be made in the minutes of the profound gratitude with which I receive this additional proof of the Argentine Delegation kindness upon moving that I be designated for that purpose.

THE PRESIDENT. We shall now proceed with the reading of the lists of the information committees. I am sorry to say that the list is not a complete one, because there still is lacking the Committees of several countries.

THE SECRETARY, DR. AMUNÁTEGUI, read the list referred and stated that the Committees of the Argentine Republic, Brazil and Paraguay are missing.

DR. FERRER. It should be borne in mind that these appointments are made *ad referendum,* as they are to be submitted to the approval of the respective Governments.

DR. MONJARÁS. The appointment of these Committees should be made by the respective Delegations. It should be remembered that the members appointed should be public officers.

DR. ARAOZ ALFARO. I move that appointment of the Argentine

Committee be left to the Government of my country, to which I shall convey the desire of the Conference.

Dr. da Rocha. I make the same statement with regard to the Brazilian Committee.

Dr. Corbalán. I am informed that several of the members appointed on the information committees have ceased to be public officers and they should therefore be replaced. This is an important point, because it is connected with the services of the different countries.

Dr. Fernández Espiro. This same question has been discussed on other occasions. Some Delegates stated that they were authorized to make the appointments for the respective committees, while others said that they were not provided with such authority. I was in this latter case, and I suggested that the Delegates, upon returning to their countries should take up with their respective Governments the matter of organizing officially the Information Committees. It was so done in my and other countries. I believe that this same procedure should now be followed. That is to say, that the Delegations having full powers from their Governments to make the appointments, may do so now; and those not having it should request their Government to organize their own committees.

Dr. Guiteras. I believe it would be proper to notify the International Sanitary Bureau of Washington when the Committees now lacking are duly organized, so that the names of the appointtees may be published in the Transactions of this Conference. (General approval.)

Dr. Ferrer. I take advantage of this opportunity to move that a vote of remembrance be taken in honor of two gentlemen intimately connected with these Conferences and their growing success. We have already given a vote of applause to General Wyman by the significant action of reappointing him once more to the Chairmanship of the International Sanitary Bureau. I think it is also our duty to send our greetings to Dr. Licéaga, of Mexico, President of the Third Conference, and to Dr. Juan José Ulloa, of Costa Rica, permanent Secretary of first Conferences, and President of the last one held in San José de Costa Rica. The affectionate remembrance that I propose is for those two gentlemen.

(The motion was carried by general acclamation.)

Dr. Monjaras. I beg to submit the following votes of thanks:

1st. That the most expressive thanks of the Conference be tendered to the people and Government of Chile, and specially to the President of the Republic and the Minister for Foreign Affairs, for the numerous and kind attentions extended to the Delegates from the nations here represented.

2d. To the Santiago society for the attentions that we have received from them.

3d. To the Argentine Legation near the Government of Chile for the reception to which the Delegates were invited.

4th. To the Chilean Delegation, which so kindly has made so pleasant the sojourn of the Delegates from the other nations.

5th. To the President of the Conference, Dr. Alejandro del Rio, for the beautiful garden party which he gave in honor of the Delegates in his residence, "Villa Maria."

6th. To the directors, administrators and professors of the scientific and charitable institutions which have so courteously received us.

Dr. Razetti. The Venezuelan Delegation had drafted a resolution which I will not read because it is similar to that presented by the Mexican Delegate.

Dr. da Rocha. I move that there be added a vote of thanks to the press of this capital.

Dr. Monjarás. I propose still another vote of thanks, that is to the Intendent and First Mayor of Valparaiso for the invitation he tendered to the Delegates to visit that city and the Peñuelas Water Works.

(All the above motions were unanimously carried.)

Dr. Asta-Buruaga. In behalf of the Chilean Delegation, I move that the Conference extend its thanks to the Bolivian Delegate for the banquet which he gave in the Club Union.

Dr. da Rocha. I request the following statement be read into the minutes:

The Delegation from the United States of Brazil wishes that record should be left in the Transactions of the Fifth International Sanitary Conference, of the successful results which, for the sanitary defense of the Brazilian ports, have been obtained by the strict compliance with the provisions contained in the Sanitary Convention of June 22, 1904, signed in Rio de Janeiro by the Plenipotentiaries from the Argentine Republic, Uruguay, Paraguay and Brazil, respecting at the same time the provisions of Washington Convention and amendments. Santiago de Chile, November 11, 1911. Dr. Ismael da Rocha. Dr. Antonio Ferrari.

The Secretary, Dr. Amunátegui. To the closing session that will be held this afternoon at four o'clock, the Delegates and their families and the Diplomatic representations of the American Republics have been invited. As this invitation has been made at a late hour, the Delegates are requested to extend it to their respective Ministers.

It being probable that ladies will be present at the closing session, at which the resolutions passed will be read, I request the Assembly to let that regarding prostitution to be read now. (Resolution X, appearing on page 68, was read.)

The session adjourned at 12 M.

Afternoon—Closing Session.

At four o'clock, assembled in the Hall of Honor of the University, the Fifth Conference held the closing session, Dr. Alejandro del Rio, presiding. To his right seated Dr. Fernández Espiro, from Uruguay, President of the Sixth Conference, and Dr. Acosta Ortiz, of Venezuela. The Secretaries, Dr. Amunátegui, Dr. Perry and Dr. Razetti, also sat at the President's table.

The Secretary, Dr. Amunátegui, read the resolutions passed by the Conference (see Appendix, pages 68 and 69).

Dr. Fernández Espiro thanked the Conference for designating the city of Montevideo as the seat for the Sixth Conference, and the

Chilean Delegation for making, through Dr. Amunátegui, the motion to that effect.

Dr. da Rocha then took the floor and delivered the farewell speech in behalf of the Delegates. He began by saying that the farewell may be divided into three parts, to wit: to the American Delegates, to Uruguay, and to Chile. With respect to the first he pointed out the fact that the American Eagle bears this motto: *E Pluribus Unum,* which means all united, and which amplified could be applied to science, to progress, to hope and to force for the defense of national honor whenever necessary. He then moved that a greeting be sent to the American Nation, which gallantry wrote the words "America for the Americans." As to Uruguay, he congratulated that country for having been selected for the seat of the next Conference, a very fitting selection, because it is the country with the smallest death rate, that is to say, 15 per cent. He then repeated the phrase of Francisco de Saca, an eminent Uruguayan, "Peoples must be learned or else die." With regard to Chile, he quotes from a geography written by his daughter, Miss da Rocha, a description of that country. He closes, saying that the Brazilian Delegates will not return to their country by way of the Andes, but by that of the Pacific around Punta Arenas so as to become acquainted with its coast.

The President. Ladies and Gentlemen: I will occupy your attention for a short time only. I only wish to express in behalf of the Chilean Delegation our sincere and affectionate esteem of yourselves, whom we have learned to love during our common labors.

The friendship created on this occasion will serve, undoubtedly, to facilitate the practical application of our acts and resolutions, taking into consideration the high representation with which you are invested and your influence near the respective Governments. A similar influence will certainly serve to facilitate the action of the information committees. It has been a matter of regret to Chile to appear before this with a poor sanitary equipment, but we cherish the hope that when we again have the honor of welcoming it, our situation will be very different, and we will then present to the American Republics a new example of what can be accomplished by carrying out the resolutions of these Conferences. The problem that should now be solved among us is far from presenting the difficulties which other countries have had to overcome, and which, as evidenced by the reports here read, have been successfully solved in practice.

The seat of the Sixth Sanitary Conference, the capital of the Oriental Republic of Uruguay, the progressive city of Montevideo, and the high merits and personal qualifications of the worthy President of that Conference, our dear and respected friend, Dr. Ernesto Fernández Espiro, insure the greatest success of that meeting.

We wish our esteemed colleagues a happy return trip, and we request them to convey to their respective governments the expression of our esteem and our appreciation of the fact that they selected representatives who have deserved our most cordial and respectful welcome. I do not believe that I exaggerate when I say that, on account of the number of nations herein represented, and of the importance of its resolutions, this Conference is no less valuable than

the preceding one and that it marks a positive progress in the history of these periodical meetings, which are so beneficial to the sanitary betterment and to the moral and material prosperity of the American Republics.

Dr Cornejo, at his request, was then given the floor. He delivered a short speech thanking the Delegates for their attentions to him; praising the work of the Conference, and paying a high compliment to its President, Dr. del Río.

APPENDIX.

Dr. Alejandro del Rio, of Chile.

President of the Fifth International Sanitary Conference of American Republics.

Dr. del Rio, unanimously elected by the Delegates to the Fifth Conference, to preside over its sessions, is one of the most prominent hygienists of Chile, having devoted many years to the public health service of his country. He is a Professor of the School of Medicine of the University of Chile, member of the Supreme Council of Public Health and administrator of the Public Assistance. By his genial personality and exquisite politeness, the distinguished President won the affection and respect of all the Delegates, who unanimously gave him a rising vote of thanks. One of the most brilliant functions held in honor of the Delegates was the Garden Party given by Dr. del Rio, on which occasion the foreign delegates had an opportunity to admire the beautiful and charming ladies of the beautiful capital of Chile.

FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.

FESTIVITIES AND SOCIAL FUNCTIONS IN HONOR OF THE DELEGATES.

From the moment the foreign Delegates landed on the hospitable shores of Chile, they were accorded a most cordial welcome and attentions of every description were showered upon them by the Chilean Government and people. At the very outset they were surprised and delighted by the arrangements made in advance for their comfort and welfare. No expense was spared by the Government to meet this end and no expense was permitted the Delegates from their own purses, if it came within the legitimate requirements of the work. The Delegates, once settled in their quarters, were invited by officials and individuals to innumerable festivites.

On Saturday afternoon, November 4, the Delegates presented their credentials to the Under-Secretary for Foreign Relations, who afterwards introduced them to the Ministers for Foreign Relations and of the Interior. An hour later they were received by the President of the Republic, Dr. Ramon Barros Luco.

At the conclusion of the opening session, on Sunday, the Delegates drove to the course of the Club Hipico, which has one of the most picturesque race courses on the American Continent, and attended the races as specially invited guests. The inaugural day concluded with a magnificent banquet given by the Chilean Delegation to the visiting Delegates in the Club Union. At this dinner Señor Paulino Alfonso, on behalf of the Chilean Delegates, welcomed the foreign Delegates, in whose name Dr. Fernando Alvarez, of the Argentine Delegation, answered in equally eloquent terms. After the banquet each Delegate was given a beautiful and artistic medal as an emblem of the Conference, the work of the famous French sculptor, M. Hippolyte Lefebvre.

On Monday, the 6th, at 5 o'clock, a garden party was given by the President of the Conference, Dr. Alejandro del Rio, at Villa Maria, his beautiful country residence, which occasion was the scene of the reunion of all the members of Santiago's smartest society and gave the Delegates the opportunity of meeting the charming and beautiful ladies of the Chilean capital.

At eight o'clock in the evening of Wednesday, His Excellency the President of the Republic tendered the members of the Conference a complimentary dinner, which was held in the State dining room of the Palacio de la Moneda, the presidential mansion, which was also attended by the diplomatic representatives of the American Republics, the members of the cabinet and prominent officials and individuals.

The following evening, the Argentine Minister gave a reception and dance, a brilliant affair, which was much enjoyed by the Delegates in whose honor it was given.

On Friday evening, the Bolivian Delegate, Dr. Claudio Sanjinés, offered to his colleagues a splendid banquet at the Club Union, to which the members of the Faculty of Medicine of Chile were also invited. At the conclusion of the dinner, Dr. Sanjinés drank to the health of the Delegates after a brief and eloquent speech, which was replied by Dr. Vicente Izquierdo, the Dean of the Faculty of Medicine. Speeches were also delivered by Dr. Razetti, of Venezuela; Dr. Vicencio, of Chile; Dr. Araoz Alfaro, of the Argentine Republic; Dr. Manterola, of Chile; Dr. Guiteras, of the United States; Dr. Carlos Ibar, of the Chilean Faculty of Medicine; and Dr. Alvarez, of the Argentine Republic.

The great banquet offered by the Chilean Government in honor of the Delegates, to celebrate the successful closing of the Conference, took place on Saturday, the 11th, at 8 o'clock. The dinner was presided over by the Minister of the Interior, Señor José Ramón Gutiérrez, who spoke in behalf of the Government. Dr. Guiteras, of the United States, answered in the name of the members of the Conference. Captain Fortescue, the representative of the Pan-American Union, also delivered a speech.

On Sunday, Señor Francisco Subercaseaux extended the hospitality of his country home, La Hacienda del Pirque; and in the afternoon the Delegates attended the Corso de Flores, or flower carnival, given in their honor in the Parque Forestal.

Having been invited by the Intendent and the Mayor of Valparaiso, the Delegates went to that port on Monday, the 13th, to visit some of its establishments and institutions, such as the hospitals, the Peñuelas water-works, and Viña del Mar, the fashionable summer resort of Chile.

When not in session the time of the delegates was occupied in visiting the different hospitals, medical schools, model sanitary tenement houses, and other institutions of this nature in Santiago. All the delegates were most enthusiastic in their praises of the hygienic institute, an institution which for completeness of detail and general perfection can not be surpassed. The visit to the school of medicine and clinical hospital, where the delegates were most hospitably received by Dr. Don Vicente Izquierdo, the distinguished Dean of the Medical Faculty, was a most instructive one. The Delegates everywhere found much to hold their attention—at the sanitary exposition in the beautiful "Palacio de Bellas Artes," the Mixed Hospital of Salvador, the Woman's Hospital of San Francisco de Borja, and at the dental school, where by special invitation Dr. Gregorio M. Guiteras, of the United States delegation, made an address.

RESOLUTIONS PASSED BY THE FIFTH INTERNATIONAL SANITARY CONFERENCE.

The Fifth International Sanitary Conference of American Republics, having duly considered and studied all the subjects provided in its program, has, through the intelligent and efficient co-operation of the Delegates thereto, passed the following Resolutions:

Be it resolved:

I. 1st, that the appreciation of the Conference be conveyed to the Governments represented; 2nd, that the American Governments be requested to send, whenever possible, delegates who are trained hygienists, or at least, who are nationals of the respective country; and that at least one delegate should be a high sanitary officer, or a person who has been a delegate to a former conference.

II. That each Republic should transmit, regularly, to the International Sanitary Bureau at Washington, and to the Central Committee at Montevideo, all documents and reports relating to sanitation in that country. These documents should include demographic conditions in the chief ports and cities and the data relating to all kinds of contagious diseases.

III. That it be recommended that the International Sanitary Bureau of Washington shall study these resolutions, include in the program for the Sixth International Sanitary Conference such amendments to the Washington Convention as it may deem necessary, and submit the respective proposed amendments.

IV. That it be recommended that each Government organize substantial and practical courses in hygiene and sanitation, so that specialists might be developed in those branches, with specific diplomas if necessary, qualified to carry out in future the work of sanitation.

V. That it be recommended to the nations which have adhered to the Sanitary Convention of Washington, that they formally comply with its provisions.

VI. That it be recommended that causes of death be certified to by physicians, at least in cities and seaports, in order to secure accuracy in statistics.

VII. That the establishment be recommended of fiscal laboratories for the analysis of food stuffs and drinks imported though the custom houses.

VIII. That nations wherein leprosy exists be advised to keep accurate and detailed statistics of lepers; to organize colonies for the isolation of the patients, and to enact laws to ward off the disease.

IX. That it be recommended to the Governments of the American Republics that they promote or facilitate investigation as to the prevalence, frequency and contagiousness of scleroma.

X. That it be recommended that prostitution should be regulated in cities, and specially in seaports, intrusting the sanitary inspection to physicians

specially prepared on the subject, discharging their duties in dispensaries or polyclinics provided with all the necessary means; and that persons that may transmit infection be confined in hospitals until cured.

XI. That it be recommended that the Governments establish in their respective countries a "Permanent Commission on Tuberculosis." The Pan-American Union of Washington shall, through the diplomatic representatives of the different American countries, request of those Governments the organization of said Commission. The various countries should also exchange information in order that all may be acquainted with the methods adopted and results obtained.

XII. That it be recommended to the nations adhering to the Convention of Washington that they amend their rules of hygiene at ports and on frontiers so as to agree with the terms of said Convention.

XIII. That it be recommended that upon arrival of a vessel, a bulletin be posted advising the passengers on board as to the sanitary rules to which they are subject, and as to the laws or regulations by virtue of which such rules are enforced.

XIV. That countries taking protective measures against arrivals from other countries be recommended to maintain on board such vessels sanitary physicians possessing the necessary technical knowledge.

XV. That it be recommended that vessels conveying passengers or immigrants be provided with apparatus and other means of disinfection.

XVI. That it be recommended that the disinfection of ships be made always in the presence of *witnesses* in order to insure the success of the disinfection.

XVII. That it be recommended that all ships conveying passengers be provided with room for the confinement of patients, for the observation of persons suspected of infectious diseases, and for the isolation of confirmed cases.

XVIII. That the International Sanitary Information Committees of the American Republics, besides the duties intrusted to them by former Conferences, shall advise their respective Governments as to the obligations imposed by the International Sanitary Conferences in which their countries have participated, or resulting from special ratifications.

XIX. That in order to consider a person as immune from yellow fever, it is necessary that he shall have suffered the disease, which fact must be proven by a certificate from the sanitary authorities in the port of departure.

XX. That it be recommended: 1st, that the water supply and sewer system of cities be constructed and operated by the State or by the respective municipalities, without regard to pecuniary profit; and, 2nd, that the selection of a source for water supply should be made by hygienists or engineers, by common accord, taking into consideration the condition of the soil and possibility of pollution.

XXI. That each Government adhering to the Sanitary Conference, in carrying out works of sanitation and hygiene, give special attention to those seaports and cities where the presence of endemic and infectious diseases shows clearly that the health of the world will be improved by the introduction in such places of modern hygienic and sanitary water supply and drainage.

XXII. That we hereby renew the recommendation made by the Third International Sanitary Conference of Mexico of 1907, to the effect that laws be adopted enforcing vaccination and revaccination against small-pox.

XXIII. That all passengers coming from cholera-infected localities, or who may incidentally have come in contact with cholera patients, shall be subjected to bacteriological examination of their intestinal excretions and shall be under sanitary surveillance if it be confirmed that they are carriers of the cholera bacillus; and that those suffering from an attack of cholera shall not be released from such surveillance, until it is shown that the bacillus has disappeared from the excretion.

XXIV. That the sanitary report that each delegation must submit on its respective country shall be delivered in due time to the secretary, in printed copies to be distributed in the preliminary session.

XXV. That we recommend the Sixth International Sanitary Conference of Montevideo to study epidemic cerebrospinal meningitis and transmissible anterior polymilitis.

XXVI. That reiteration be made of the recommendations passed by the previous conferences on prophylactic measures against plague, specially those regarding the destruction of rats, both on land and on board.

REPORTS SUBMITTED BY THE COMMITTEES.

REPORT BY THE EXECUTIVE COMMITTEE.

MESSRS. DELEGATES:

Your Executive Committee, after studying the various propositions referred to its consideration, recommends that the following be adopted, they meeting, in the opinion of the Committee, the general requirements.

(The text of the resolutions appear on page 68.)

Respectfully submitted: E. Fernandez Espiro, Alejandro del Rio, G. M. Guiteras, F. Alvarez, J. E. Monjarás, Ismael da Rocha.

The I Resolution was passed in view of a motion by Dr. G. Amunátegui, of Chile;

The II, on motions by Dr. Guiteras, of the United States, Drs. Fernandez Espiro and Oliver, of Uruguay, and Dr. Del Rio, of Chile;

The III, on motions by Dr. Roberts, of Cuba, Dr. Dávila Boza, of Chile, Dr. Guiteras, of the United States, and Dr. Razetti, of Venezuela;

The IV, on a motion by Drs. Araoz Alfaro and Alvarez of the Argentine Republic;

The V, on motion by Dr. Cornejo y Gomez, of Ecuador, and Dr. Monjarás, of México;

The VI, on motion by Dr. del Rio, of Chile;

The VII, on motion by Dr. Asta-Buruaga, of Chile;

The VIII, on motion by Dr. Urizar, of Paraguay;

The IX and X on motion by Dr. del Rio, of Chile;

The XI, on a motion by Dr. Soza, of Chile;

The XII, XIII, XIV, XV, XVI, and XVII, on motions by Dr. Monjarás, of México;

The XVIII, on motion by Dr. Ferrer, of Chile;

The XIX, in view of the report by the Committee on Yellow Fever;

The XX, on a motion by Dr. Illanes, of Chile;

The XXI, on a motion by Dr. Vial, of Chile;

The XXII, on a motion by Dr. Sanjinés, of Bolivia;

The XXIII is based on the report of the Committee on Cholera;

The XXIV, on a motion by Dr. Vicencio, of Colombia;

The XXV, on a motion by the Argentine Delegates;

The XXVI, is based on the report of the Committee of Plague and on a motion by Dr. Cornejo y Gomez, of Ecuador.

The Executive Committee also took under consideration the following motions, which were submitted to the Conference:

A motion by the Venezuelan Delegation proposing that it be recommended that the Governments of America adopt the modifications to the abbreviated Nomenclature of Bertillon's Classification, introduced by the Bureau of Statistics of the Venezuelan Department of Promotion.

A motion by Dr. Ferrer, of Chile, recommending the insertion of the resolutions passed by the four previous Conferences in the Transactions of the Fifth, and that the Pan American Union be requested to call the attention to the necessity of complying with the sanitary agreements adopted.

A motion by Dr. J. E. Monjarás, of Mexico, regarding the diagnosis of yellow fever.

A motion by Dr. Vicencio, of Colombia, recommending the establishment of pediatria services

A motion by Dr. Lauda, of Chile, recommending the adoption of immigration laws in accordance with modern sanitation.

A motion by Dr. Manterola, of Chile, recommending the construction of school houses according to the rules of school hygiene, and so built that they shall be a guarantee to the life of the pupils.

A motion by Dr. del Rio, of Chile, recommending the publication in Spanish of a text and atlas of school and administrative hygiene for use by officers having charge of public hygiene.

REPORT BY THE COMMITTEE ON CREDENTIALS.

Your Committee on Credentials has examined the Powers exhibited by the following delegates:

Argentine Republic.—Doctores Don Gregorio Araoz Alfaro y Don Fernando Alvarez.

Bolivia.—Doctor Don Claudio Sanjinés.

Brasil.—General Doctor Don Ismael da Rocha y Doctor Don Antonio Ferrari.

Colombia.—Doctor Don Alcibíades Vicencio.

Costa Rica.—Doctor Don Fernando Iglesias.

Cuba.—Doctor Don Hugo Roberts.

Dominican Republic.—Doctor Don José R. Campos y Señor Don Tito Lizoni.

Ecuador.—Doctor Don Luis F. Cornejo y Gómez.

Guatemala.—Doctor Don Salvador Ortega y Don Julio Bianchi.

México.—Doctor Don Jesús Monjarás.

Panamá.—Doctor Don Caupolicán Pardo Correa.

Paraguay.—Doctor Don Rogelio Urízar.

Salvador.—Doctor Don Juan B. Miranda.

United States.—Doctors Gregorio M. Guiteras y J. C. Perry, of the U. S. Public Health and Marine Hospital Service.

Uruguay.—Doctores Don Ernesto Fernández Espiro y Don Jaime H. Oliver.

Venezuela.—Doctores Don Pablo Acosta Ortiz y Don Luis Razetti.

Pan American Union.—Capitán Granville R. Fortescue.

And having found the said Credentials in due form, it recommends that they be approved.

Santiago, November 8, 1911.—Vicente Izquierdo.—Kaupolicán Pardo Correa.—R. Corbalán Melgarejo.—Paulino Alfonso.

REPORT BY THE COMMITTEE ON BUBONIC PLAGUE.

Your Committee has studied the four motions submitted respectively by Dr. C. Sanjinés, of Bolivia; Dr. H. Roberts, of Cuba; Dr. R. Dávila Boza, of Chile; and Dr. R. Urízar, of Paraguay, and has the honor to recommend that action as follows be taken on each of the said motions:

MOTION OF THE BOLIVIAN DELEGATE.

As all proposed resolutions should be equally applicable to all the nations of the Continent and not limited to any given country or countries, this motion is amended as follows:

Resolved, That reiteration be made to the Governments as to the necessity of improving the sanitary conditions of ports in pursuance of the Washington Sanitary Convention, and to signify to them the desire of the Fifth Sanitary Conference that there should be undertaken as soon as possible the establishment of experimental bacteriological laboratories, the destruction of rats, the increase and improvement of sanitary stations in the principal ports, and other prophylactic measures recommended.

MOTION BY THE CUBAN DELEGATE.

The Committee recommends that the motion submitted by Dr. Roberts be approved in all its parts as follows:

1st. Every vessel engaged in navigation should be provided, besides other sanitary papers, with a certificate from a competent authority, to the effect that the vessel has been totally freed from rats, within a period not over six months.

2nd. This document shall be deemed indispensable, like other health documents required by maritime sanitary authorities, and no ship that is not provided with the said certificate shall be allowed to engage in navigation.

3rd. The nations participating in this conference shall allow a period of not more than six months within which their respective ships shall comply with this provision.

Your Committee further suggests the addition of the following paragraph:

4th. Said certificates shall be valid only for non-infected ships; infected ships shall be subject to disinfection and destruction of rats, as may be ordered by the sanitary authorities of the port.

MOTION BY THE CHILEAN DELEGATE, DR. DÁVILA BOZA.

Your Committee suggests that this motion be modified so that it shall be in the nature of a recommendation and not an amendment to the Washington Convention. With said modification the motion would read as follows:

That it be recommended that the maritime sanitary authorities endeavor to carry out the destruction of rats in ships before unloading, and if not possible, within 48 hours after; without damaging the merchandise, the vessel or its engines.

MOTION BY DR. URÍZAR, OF PARAGUAY.

Your Committee suggests that this motion be approved, not as a resolution, but merely as a recommendation, considering that the aseptic serum from horses is not of a lasting effect.

Santiago, November 10, 1911.—Dr. Antonio Ferrari.—L. F. Cornejo Gómez.—P. L. Ferrer.

REPORT BY THE COMMITTEE ON MALARIA.

Your Committee on Malaria has the honor to report as follows on the motion submitted by the Venezuelan Delegation:

That it be recommended to the Governments in whose countries the malarial epidemic prevails, that they adopt, as the fundamental code for the anti-malaria campaign, the resolutions and recommendations passed by the Simla Conference, as proposed by the said delegation, or any other regulations the effectiveness of which has been shown in other countries and which may be specially applicable to the American Republic. And that the Delegates shall report upon the results obtained in the anti-malaria campaign in their respective countries.

Santiago, November 9, 1911.—J. C. Perry.—Claudio Sanjinés.—H. Roberts.

REPORT OF THE COMMITTEE ON YELLOW FEVER.

The Committee on Yellow Fever has the honor to report on the motions presented by the delegates indicated, as follows:

With regard to yellow fever two different opinions have been submitted as to what constitutes immunity from said disease for practical quarantine purposes.

According to the United States Delegation, only those producing a certificate to the effect that they have previously suffered from the disease.

According to the Cuban Delegation, persons immune from the disease are, not only those who have suffered from the disease, but also those who have lived for over ten consecutive years in an endemic focus of yellow fever without having contracted the disease.

Santiago, November 9, 1911.—J. C. Perry.—Claudio Sanjinés.—H. Roberts.

REPORT OF THE COMMITTEE ON CHOLERA.

Your Committee on Cholera has studied the four motives submitted by Dr. Roberts, of Cuba, Drs. Araoz Alfaro and Alvarez, of the Argentine Republic, and Dr. Guiteras, of the United States, all of which agree in principles; therefore, your Committee recommends that the following be adopted, which harmonizes with the fundamental ideas: "Be it resolved that all passengers coming from cholera-infected localities, or who may incidentally have come in contact with cholera patients, shall be subjected to bacteriological examina-

tions of their intestinal excretions and shall be under sanitary surveillance if it be confirmed that they are carriers of the cholera bacillus; and that those suffering from an attack of cholera shall not be released from such surveillance, until it is shown that the bacillus has disappeared from the excretion.

Santiago, November 9, 1911.—Luis Asta Buruaga.—G. Araoz Alfaro.

REPORTS BY THE COMMITTEE ON SANITATION OF COAST AND FRONTIER TOWNS.

I. Your Committee on Sanitation of Coast and Frontier Towns, having studied the motion by the Chilean Delegate Sr. Illanes, recommends its adoption, with this amendment: add after the word "respective" the following: "by administration or by contract.—J. H. Oliver.—Carlos Altamirano—E. Garcia Collao.—Manuel C. Vial.

MOTION BY ENGINEER ILLANES, OF CHILE.

Be it recommended that the water supply and sewer system of cities be constructed and operated by the State or by the respective municipalities, without regard to pecuniary profit; and, 2nd, that the selection of a source for water supply should be made by hygienists or engineers, by common accord, taking into consideration the condition of the soil and the possibility of pollution.

II. Your Committee on Sanitation of Coast and Frontier Towns, having studied the motion by Dr. Manuel Camilo Vial, of Chile, recommends its adoption.—Guillermo Illanes.—J. H. Oliver.—Carlos Altamirano.—E. Garcia Collao.

MOTION BY DR. MANUEL C. VIAL, OF CHILE.

That each Government adhering to the Sanitary Conference, in carrying out works of sanitation and hygiene, give special attention to those seaports and cities where the presence of endemic and infectious diseases shows clearly that the health of the world will be improved by the introduction in such places of modern hygienic and sanitary water supply and drainage.

REPORTS BY THE COMMITTEE ON PROPHYLAXIS OF ACUTE TRANSMISSIBLE DISEASES.

I. Your Committee on Prophylaxis on Acute Transmissible Diseases has the honor to report upon the motion by Dr. Claudio Sanjinés, of Bolivia, which is as follows:

"Be it resolved that we hereby renew the recommendation made by the Third International Sanitary Conference of Mexico of 1907, to the effect that laws be adopted enforcing vaccination and revaccination against small-pox.

And we have the honor to recommend that it be adopted in full.—Alcibiades Vicencio.—Juan B. Miranda.—P. Acosta Ortiz.—Fernando Iglesias.

Your Committee on Prophylaxis on Acute Transmissible Diseases has the honor to report upon the motion submitted by the Argentine Delegates recommending that vaccination be taught practically in normal schools.

Although the idea of the Argentine Delegates is worthy of applause, this Committee does not deem it wise to recommend its adoption. It is a good idea in particular cases, but it is not of general interest. On the other hand, since vaccination is compulsory in most countries, the proposition might be included in the laws or regulations of the respective nation, which legislation must vary according to the topography, nature of the population, etc.—P. Acosta Ortiz.—Alcibiades Vicencio.—Juan B. Miranda.—Fernando Iglesias.

REPORT BY THE COMMITTEE ON PROPHYLAXIS OF CHRONIC TRANSMISSIBLE DISEASES.

Your Committee on Prophylaxis of Chronic Transmissible Diseases has studied the following motions:

(1) MOTION BY DR. URÍZAR, OF PARAGUAY.

Whereas leprosy is spreading in America and invading new regions, be it resolved that nations wherein leprosy exists be advised to keep accurate and detailed statistics of lepers; to organize colonies for the isolation of the patients, and to enact laws to ward off the disease.

(2) MOTION BY DR. DEL RIO, OF CHILE.

"Resolved that it be recommended to the Governments of the American Republics that they promote or facilitate investigation as to the prevalence, frequency and contagiousness of scleroma.

(3) MOTION BY THE SAME.

That it be recommended that prostitution should be regulated in cities, and specially in seaports, intrusting the sanitary inspection to physicians specially prepared on the subject, discharging their duties in dispensaries or polyclinics provided with all the necessary means; and that persons that may transmit infection be confined in hospitals until cured.

(4) MOTION BY DR. SOZA, OF CHILE.

That it be recommended that the Governments establish in their respective countries a "Permanent Commission on Tuberculosis." The Pan American Union of Washington shall, through the diplomatic representatives of the different American countries, request of those Governments the organization of said Commission. The various countries should also exchange information in order that all may be acquainted with the methods adopted and results obtained."

We have the honor to recommend the adoption of the above motions, without any amendments.—Santiago, November 9, 1911.—Roberto del Rio.—R. Urízar.—Salvador Ortega.—Ernesto Soza.

REPORT OF THE ARGENTINE DELEGATION, CONSISTING OF DOCTORS GREGORIO ARAOZ ALFARO AND FERNANDO ALVAREZ.

I.

SANITARY POLICE LEGISLATION AND SANITARY MEASURES ADOPTED SINCE THE 4TH CONFERENCE.

As our country has not attended the preceding conferences, we deem it necessary to submit a general sketch of our sanitary organization.

Ours being a federal system of government, our National Government does not exercise any direct jurisdiction on sanitation, except in the capital and federal territories, and on matters relating to ports and land frontiers.

The superior sanitary authority is called "National Department of Hygiene" and is constituted by an "Advisory Board," consisting of 3 physicians who are experts on hygiene, 1 veterinary surgeon, 1 member of the Army Sanitary Service, and 1 president who has executive powers. This Department is under the Ministry of the Interior and consists of the following sections:

Marine Sanitation, the service extending to all the ports of the republic.

Interior Sanitation, embracing the following sections: Vaccination, Malaria, Social and Industrial Hygiene, Railways, Demography, Inspection of Pharmacies, and

School Hygiene.

Under this Department the following sections are placed:

Chemical Laboratory, for analysis of foods, medicines, specific, etc.;

Bacteriological Laboratory, destined to the preparation of serum, aside from hygienic examinations and investigations. A beautiful ample building is being erected outside of the city limits, for this Laboratory.

Division of disinfection, embracing all sorts of disinfections by means of formol and other chemical preparations, Clayton and Marot apparatuses for the destruction of rats, etc.

The annual budget for the Department of Hygiene amounts at the present time to about $1,400,000 gold, besides a sum of about $100,000 gold, destined by law for the antimalarial campaign. The Government has requested for the next fiscal year an additional $800,000 for the termination of the sanitary stations in the principal provincial cities.

In the city of Buenos Ayres, having a population of about 1,200,000 inhabitants, the local service is in the hands of the "Direction General of Public Beneficence and Sanitary Administration" under the Municipality. This Direction General controls all hospitals, asylums, and certain dispensaries, service of first aid; dispensaries, etc., for children; inspection of prostitution, inspection of slaughter houses, markets, and foods; vaccine, bacteriological laboratory, disinfection, with several stations within the city, and special gangs for the killing of rats, etc. This service is completed by those under the foundling and orphan asylum and the Benevolent Society.

There is in each province a Board of Hygiene, whose functions and organization are similar to those of the National Department and Public Beneficence established in all the important towns.

Our sanitary legislation consists of the following:

An act creating the National Department of Hygiene, amended last year, as to organization.

Municipal and Provincial Orders, organizing the Division of Public Charities, Boards of Hygiene, Disinfection, etc.

Regulations of the Land and Marine Sanitary police.

Law providing for compulsory vaccination and revaccination in the capital and federal territories. Several of the provinces have also enacted similar legislation.

Legislation against malaria.

The provinces and municipalities have also enacted special legislation, regulating the inspection of food, medicines, buildings, prostitution, etc. The *Sanitary Direction of the Province of Buenos Ayres* deserves all commendation because of its completeness.

The *General Direction of Sanitary Works,* dependent from the Ministry of Public Works is in charge of the construction and operation of the system of potable waters and sewerage in the capital city and in such provinces as request the aid of the National Government.

II.

RESOLUTIONS ADOPTED BY THE FOUR PRECEDING CONFERENCES.

Notwithstanding the fact that our country did not attend the four preceding conferences, almost all the recommendations adopted by them had already been enforced by us, even before such recommendations, as will be shown in the body of this report. On the other hand, the Sanitary Convention of Argentine, Uruguay, Paraguay and Brazil, signed at Rio de Janeiro in 1904 and still in force, is based on the same principles as that of Washington in 1905.

III AND IV.

Not having attended the preceding conferences we cannot report on these points, but we have no doubt that our government will lose no time in communicating with the Montevideo and Washington Bureaus.

V.

SANITATION OF CITIES AND ESPECIALLY OF PORTS, STATING WHAT THE NATIONAL GOVERNMENT HAS DONE IN THIS MATTER.

Buenos Ayres, La Plata, Rosario, and Bahia Blanca, the principal ports of our country, have enjoyed for a number of years a complete sanitary service, such as an abundance of excellent potable water, sewerage and drainage systems, inspection, disinfection and deratization systems, etc.

Other ports of lesser importance in the south, as well as the river ports are all being furnished with such systems by the National Government.

There has never been any endemic disease in any of our ports. As regards the provincial towns, important works of sanitation have been undertaken with the aid of the National Government, and in the poorer provinces by the Federal Government alone. In all the capital cities, there are at present good systems of pure, excellent drinking water and this work is being extended to smaller towns in the province of Buenos Ayres in the campaign against typhoid fever, due frequently to well water. Cordoba is now furnishing an extensive sewer system, and Tucuman, Salta, Catamarca and Jujuy, towns where malaria was prevalent, have almost completed their sanitary work under the *Direction General of Sanitary Works of the Capital,* and malaria has already decreased to a remarkable extent.

We have the satisfaction of stating that a few years hence not one city will be found in the republic without a complete sanitary service. In all the provinces and federal territories there are in operation disinfection stations, with a special personnel devoted to the work of deratization, this service being maintained by provincial appropriations in the richer states and by the federal government in the poorer states.

VI.

PROPHYLACTIC MEASURES ADOPTED AGAINST PLAGUE, CHOLERA AND YELLOW FEVER, WITH SPECIFICATION OF THE MEANS EMPLOYED IN THE DESTRUCTION OF RATS, FLIES AND MOSQUITOES.

Plague. Of all these diseases only the *plague,* which was introduced in 1900, sporadically appears in some places in the republic, and once in a while a small focus consisting of 8 or 10 cases is found. These cases have in reality no collective importance, but serve to demonstrate the enormous difficulty of completely stamping out the disease, particularly in our country because of the immense quantity of cereals and grains to be harvested, stored and exported every year.

The principal means adopted to fight the plague are:

Systematic deratization of all ships coming to port. In the port of Buenos Ayres there are Clayton apparatuses on wagons, while in other ports both the Clayton and Marot systems are used. Besides these methods there are special devices used to prevent the landing of rats, over ropes, chains, etc. *Gangs* of men are permanently engaged in the cities and in the water front in the destruction of rats by means of portable "Gubba" generators of gases. Neither the serum nor the fluids from Europe have been successful. A certain number of dead rats is sent from each batch for dissection and bacteriological examination. Should any appear to be infected the houses are surrounded and the extermination made as thorough as possible.

There is an ordinance in force in Buenos Ayres providing for the rat proof construction of all new buildings. Railway stations, stables, granaries, mills and grain warehouses are subject to special vigilance for the extermination of rats. So far as garbage is concerned for many years it has been kept and collected by most approved methods. Large Backer ovens will soon be built for the cremation of garbage, thus doing away with the obsolete system of burning.

Cholera. For many years we have not had a case of cholera in the cities. One or two cases arriving in ships from abroad have been isolated and treated in the Island of Martin Garcia. In the matter of prophylaxis against cholera, in the last few years, especially because of the epidemics of Italy, and the cases in Trieste and Marseilles, the country has been governed by the Sanitary Convention of Rio de Janeiro, which we have already mentioned as based upon the most liberal principles. We desire to call special attention to the fact that our Department of Hygiene has given for the last year considerable importance to the investigations of the bacillus carriers, and that we have been lately able to find in healthy passengers from Italian ports the cholera bacillus. We believe that it is necessary to further extend the prophylactic measures in this respect, and we will later have the honor to submit a resolution covering this point.

Yellow fever. It does not exist in our country and fortunately during the last few years very few cases have arrived at our ports from Brazil. The provisions of the Convention of Rio de Janeiro are enforced in these cases.

VII.

As there is no yellow fever in our country, we cannot express an opinion on this topic.

VIII.

NATIONAL AND INTERNATIONAL PROPHYLAXIS IN TUBERCULOSIS, VENEREAL DISEASES, SMALLPOX, MALARIA, TRACHOMA, LEPROSY, AND SCLEROMA. LEGISLATION ON THE SUBJECT AND RESULTS OBTAINED.

Tuberculosis has been for many years the object of an unrelenting and uninterrupted campaign by the authorities and by the *Argentine League against Tuberculosis,* in connection with the International League. We have regulations and ordinances prohibiting expectorating outside of cuspidores, receiving patients declared as suffering from tuberculosis in common hospitals, and prescribing periodical disinfection of railways, tramways, etc., and the houses of those suffering from tuberculosis or who have died from the disease. There are special dispensaries and sanitariums, both in Buenos Ayres and Cordoba, open air schools, special colonies, etc.

Against venereal diseases. There are in the capital and in all provinces regulations relative to *venereal diseases,* such as those regulating prostitution, periodical examination of prostitutes, identification cards, etc. There are also free consultation rooms for those having secret diseases and a *Social Hygiene Alliance* has lately been established for prophylactic purposes.

For *smallpox* there is compulsory vaccination and revaccination, with animal virus from an excellent and old National institute. During the past and in the present year, there has been in certain portions of the country, Tucuman and Mendoza principally, a slight epidemic of smallpox which has permitted the employment of the method of intensive revaccination. The epidemic has almost disappeared. Immigrants are not allowed to enter the country unless vaccinated.

Malarial or paludic fever has been a source of preoccupation for all in our

country because of our territorial extent (3,000,000 square kilometers), containing all sorts of climate. We have a vast malarial region of over 400,000 square kilometers, mainly in the provinces of Tucuman, Salta, Jujuy, Catamarca and the Territory of Chaco, and portions of Santiago and Cordoba. We have a law against malaria, and we are now carrying on a most active campaign against malaria, employing all known means, such as quinine as a cure and as a preventive, protection against mosquitoes, extermination of mosquitoes by means of fumigation, petroleum, reclamation of swampy lands, and other means. In certain regions where it was necessary to have still water, as lakes or reservoirs, for the use of men and beast, flowing wells are being built, so as to do away with the old system. For this campaign against malaria the budget in force carries an appropriation of about $100,000, gold, but there is a movement on foot to increase this sum to about $1,000,000, gold.

Trachoma is a rare disease among us and not endemic. No person suffering from trachoma is allowed to enter the country.

Leprosy is scarce in Argentina. Some years ago there was a great deal of interest shown in this disease, resulting in a Congress of Leprosy being held in Buenos Ayres, when a complete census of lepers was made. In the entire republic, having a population of about 7,000,000 the number of lepers does not exceed 300 odd cases, and allowing an ample margin for omissions we may say they do not reach 500. The lepers are to be isolated either in a special hospital in Buenos Ayres or in a leper colony on an island in the province of Entre Rios, where there are a few cases as in Corrientes and Santa Fé.

Scleroma is unknown in Argentina.

IX.

MONTHLY AND ANNUAL VITAL STATISTICS OF THE PRINCIPAL PORTS AND CITIES. REPORT ON THE ADOPTION OF THE BERTILLON NOMENCLATURE.

In the capital, as in the provinces, a complete system of statistics has been kept for many years. Only a few of the provinces, the less wealthy, have no complete system of statistics, but this will be remedied as circumstances permit. As to mortality, it suffices to state, in general terms, that in Buenos Ayres, for many years it has ranged from 16 to 19 per 1,000, notwithstanding the fact that many persons from the interior towns come to Buenos Ayres to die, as in any other large capital.

X.

PROPHYLAXIS OF INTERNATIONAL TRAFFIC EITHER BY SEA OR LAND, IN CASE OF CONTAGIOUS AND QUARANTINE DISEASES.

Under Nos. I, II and VI we have stated how our prophylactic service has been organized, and which are the principles adopted and fixed by the Rio de Janeiro Convention in 1904, with Brazil, Uruguay and Paraguay. The spirit of this Convention and general rules agree with the Paris Convention in 1903 and that of Washington in 1905. We again beg to call attention to the great importance of observing cholera carriers, whether convalescing from the disease, or in good health but coming from infected districts.

XI.

SANITARY LAWS ON IMMIGRATION.

All we can say is that our laws prohibit the entry into our country of any person suffering from chronic contagious diseases, especially trachoma and leprosy. Persons unfit for work or over 60 years of age [except when they have relatives in the country, under certain conditions] are debarred, as well as adventurers or fugitives from justice.

XII.

ADOPTION OF MARITIME SANITARY PAPERS APPROVED BY THE FOURTH CONFERENCE.

Our country did not attend said conference.

REPORT OF DR. CLAUDIO SANJINES, BOLIVIAN DELEGATE.

Mr. President and Messrs. Delegates: The Bolivian Government having been invited to participate in the Fifth Sanitary Conference of the American States, has appointed me its delegate. To comply with the provisional program of this conference it would have been my pleasure to submit a special report on the progress of sanitation in the principal cities in Bolivia. But unfortunately I was appointed at the last moment and have not been able to gather other data than that dealing with the general sanitary conditions of Bolivia, a few diseases in the Colonias Territory, and some data relative to climatology and the sanitary conditions of La Paz.

Sanitary Organization.

The municipal organic law gave authority to municipalities to deal with all sanitary problems; this authority, however, was generally ineffective and insufficient. In view of this fact Senator Andres S. Muñoz, a distinguished physician, without trying to abolish such authority, prepared a project of a General Public Sanitary Law, in order to create a sanitary administration dependent on the Executive Power, having the fullest authority, under a Director General, directors of Departmental Sanitation and provincial physicians. This project after being carefully considered by the Faculty of Medicine of La Paz, was submitted to the National Congress, and has become a law of the republic. I deem it an honor to have been the President of the Medical Association when this law was under discussion.

The Government, with the advice of the Medical Association, engaged the services of a specialist in Germany as Director General. Unfortunately the person engaged, a member of the University of Freiburg, did not satisfy the wishes of the Government, and was relieved from further duty. The National Congress is at this moment discussing an appropriation for the reorganization of the Service, with a competent personnel.

Compulsory Vaccination and Revaccination.

I believe, gentlemen, that if there are epidemic diseases hard to fight against, this cannot be said any longer of smallpox, which besides making many victims, leaves indelible marks on the skin, produces blindness, etc. To cope with this loathesome and terrible disease, we have today a most powerful arm, *vaccine virus*. And I want right here to submit a motion to the consideration of this Conference, and it is to recommend that the recommendation of the Third International Sanitary Conference held in Mexico in 1907, in reference to compulsory vaccination, be not ignored. Smallpox has also made its ravages in Bolivia in former years, and the National Congress has passed a law which has been promulgated by the Executive, providing for compulsory vaccination and revaccination. In compliance with this law, the proper sanitary officers go from house to house within the infected territory, to vaccinate all individuals. There are also dispensaries where on certain days vaccination is performed. We are fortunate to have in Bolivia in the "Sucre Medical Institute" a vaccine division, founded in 1898. It is now progressing under the able direction of Doctor Nicolas Ortiz, and producing a virus which has been most successful both at home and abroad. I believe that in 1907, the president of the institute, Dr. M. Cuellar, had the virus tested and the report stated that it ranked among the best of its kind prepared in South America. The best proof of this lies in the fact that smallpox has disappeared in Sucre. We are grateful for the excellent work of the "Sucre Medical Institute."

Potable Water.

The Bolivian Government, fully aware that the principal factor in the sani-

tation of a town is a supply of good drinking water, has been expending for several years large sums for the improvement of the water system, by means of modern piping and filtration plants. All municipalities have contributed to this work within their means. Further reference to this subject will be made later on. According to my information obtained from our Treasury Department, during the last few years the Government has spent in the improvement of the water system of the cities of Cochabamba, La Paz, Potosi, Oruro, Tarija, Santa Cruz, Trinidad, Padilla, Capinota, Punata and Totora, the amount of $3,346,449, including in this sum the works to bring water from Cajamarca to Sucre. A large order for water pipes has been given lately to a German firm for the cities of La Paz, Cochabamba, Trinidad and Caraza.

National Institute of Bacteriology.

This institute, only recently created, due to the initiative of President Ismael Montes, is working satisfactorily in La Paz, under Dr. Nestor Morales Villazón, who was sent by the Government to Europe to make certain special research. The first work of the institute has been devoted to the bacteriological analysis of the potable waters of La Paz showing the improvement attained by the use of the new pipes and filters. For instance, the waters of Challapampa at the time of the old system gave 6,818,000 bacteriæ per litre, and later 3,750,000 and 1,000,000, which translated into plain facts show an enormous number of infectious diseases of the digestive organs, and typhoid fevers, particularly in children. After the new system had been in use the examination of the water showed first 1,278,000, then 700,000, then 145,000, and finally 63,000 bacteriæ per litre, while typhoid has almost disappeared, and the infections of the intestinal canal have decreased.

The species most frequently found are *colicomunis, proteus vulgaris, fluoresens putridas* and *fluoresens liquificens.* At present the institute is engaged in the examination of the waters of Milluni, which I believe to be pure as they are taken at their source, sent to the filters and thence distributed through first-class piping.

Dr. Morales' work with the *Eberth bacillus* is worthy of consideration. In virulent cultures from Europe and isolated species in patients in La Paz, he has found that the bacteriæ protoplasm, from the 2d and 3d culture, a degenerative process, inoculated on animals give unimportant reaction. He has made the same observation as regards the *Koch bacillus.* Inoculations on horses with virulent European cultures and tubercular sputa, only show a rise in temperature and decrease in weight, the horses having improved rapidly, all signs of inoculation having disappeared. Dr. Morales believes that at an altitude of 3,630 metres above the level of the sea the defense of the phagocites is most powerful.

To investigate the popular belief that syphilis is found in the *llama,* several have been inoculated with the virus, with negative results. The investigations of Dr. Morales on blood from malarial patients from the La Paz creeks, have shown the existence of the Laveran hematozoa in all forms, mainly as a rosette. The foregoing suffices to show that the Bacteriological Institute is a powerful agent in hygienics.

Malaria.

From the provisional program of the Fifth Sanitary Conference a special topic has been omitted for the discussion of sanitary measures against malaria, notwithstanding that the Delegate from Costa Rica to the Fourth Conference submitted a motion calling for the appointment of an international committee for the purpose of preparing a handbook in plain language so that all may understand it to fight against malaria, such work to be submitted to this Conference.

If malaria is only known in the northern portion of Chile, on the other hand for the great majority of the delegates here present, this must be a topic of the greatest importance, as malaria is endemic in tropical countries. I, therefore, beg to suggest especially to such of the delegates as have a better knowledge of the disease, to consider at this meeting how to make effective Dr. Rojas' motion. It would be most important to me, and to Bolivia an invaluable service, if I could take back to my country a complete report, not only of the modern theories on malaria but also on the elements at the command of science to fight against

the disease. I feel sure that my suggestion will be acted upon when my colleagues learn of the ravages malaria has done in some sections of Bolivia.

Distribution of Malaria in Bolivia.

An examination of the distribution of malaria in Bolivia clearly demonstrates that this endemic disease does not exist in cold countries and increases as a warmer climate is approached; that in the temperate regions it only makes its appearance during the heated season; that malaria does not require a warm climate merely, but also humidity and stagnant waters, developing especially in low, undrained territory, in places where humidity is constant due to superficial underground water; in places subject to inundation, and near rivers and particularly small streams. According to this, malaria is found in Bolivia as follows:

Department of Chuquisaca: Province of Tomina and basins of the Pilcomayo, Churumatos and Oroconta; in Camataqui, a special type accompanied often by hemorrhages and cirrhosis of the liver. It is very resistent to the quinine treatment.

Department of La Paz: In most of its provinces.

Department of Beni: At the capital and a few other towns.

Department of Cochabamba: In some of its provinces, mainly in Mizque and the swampy regions.

Department of Potosi: In some of its provinces, particularly the proximity of the Pilcomayo river.

Department of Tarija: The Gran Chaco and Tarija.

Department of Santa Cruz: In some portions of this Department.

As may be seen, Bolivia is a prey to malaria. The ravages of malaria, of course, are better checked at points in the vicinity of cities and towns. As I have remarked, malaria is prevalent along the basins of the large rivers, in the regions where rubber is extracted, and trade posts have naturally been established. The distribution of malaria in Bolivia may be established in a general way along the great rivers and all their respective affluents. The presence of rubber in the northwestern portion of Bolivia, which naturally attracts trade, and certain difficulties with the neighboring countries made necessary during a few years the sending of troops to the frontier, which fell in great numbers the victims of malaria. This is now a matter of history, because the sanitation of those dangerous regions has been perfected to such an extent that there exist now prosperous towns, among them some of the healthiest in Bolivia. Surgeon General Elias Sagaruaga of the Bolivian Army, who went to that region with the expedition in 1903, has submitted to the Supreme Government a set of rules against malaria which it is expected will be placed in the hands of those living in malarial zones. I shall not enter into a discussion of the disease, but will simply state that malaria in Bolivia is present in all its forms.

Espundia.

I have nothing to add to the monograph submitted by my distinguished colleague, Dr. Elias Sagaruaga, at the Fourth Scientific Congress (First Pan American) held in this city in December, 1908, under the title: "Tropical Pathology of Espundia." It is the *Buba* according to Breda, of Padova, Italy, and may be confounded with the *Pian* and Frambesia. Breda believes to have discovered the bacillus of *Espundia,* and has studied this disease in the laborers returning to Italy from Brazil, and in 1907 published his work "La Bouba del Brasile." It appears that Breda's theories are accepted by French dermatologists. The Breda bacillus cannot be cultivated, nor has it shown any lesions when inoculated in the ear of a rabbit. Maiocchi and Bosellini have described another bacillus. Castellani maintains that yaws, pian and buba are one and the same thing; that the tardy localization in the mucus membrane can be compared to the manifestations of syphilis, and that the real pathogenic agent is a protozoa the *treponema pertenue,* spiral, belonging, because of its characteristics, more to the spirochetes than to the treponemas, and similar to the schandin.

The characteristics of the pathological anatomy of *espundia* are the plasmatic cells; the lesions are both of the skin and the mucus membrane, very similar to

frambesia. Breda maintains that pian and yaws are very different from buba, and that this is more like frambesia and espundia. The matter has not been definitely settled. As espundia is neither contagious nor easy to spread, the prophylactic measures cannot be positive. It is better, however, to isolate the patients. The employ of gaiters as a protection against insect bites and scratching is recommended. Gaiters may be substituted by puttees in damp places. Malnutrition is another cause of ulcers. Besides the remedies known in La Paz, Salvarsan or 606 has been used. While there has been a certain measure of success, it cannot be compared with that attained in the treatment of syphilis. I believe that improvement in a large number of patients has been due to the use of arsenic.

La Paz is subject to atmospheric variations from one day to another and even during the same day. These variations are productive of catarrhal affections.

As the hospital records are generally used for statistical purposes as regards prevailing diseases, and these have been kept without entering the name of the place where the patients come from, many coming from the provinces, no accurate data can be had. This will be remedied in future, thus facilitating our statistical work. Death certificates should also contain this information.

The Municipality of La Paz will soon have a bureau for the collection of vital statistics.

From incomplete statistical data on burials we find that from 1900 to 1910 the number of deaths from fever (generally typhoid) was 1,490; measles, children from 1 to 7 years of age, 2,020; from 8 to 15, 596; whooping cough, children between 1 and 7 years of age, 2,398; between 8 and 15, 928; gastro-intestinal diseases, children from 1 to 7, 1,859; from 8 to 15, 259; smallpox, children between 1 and 7, 1,055; from 8 to 15, 281; from 16 to 21, 148; from 30 to 41, 40; dysentery, 1,766 deaths; bronchitis, 753; grippe, 123; pneumonia, 1,702; gastro-intestinal infections, 288; malaria, 22; heart disease, 728; pleurisy, 501; tuberculosis, 251, etc.

From the foregoing a fair idea may be had of the dominant diseases, especially the infectious and contagious diseases. Lack of hygiene, and other habits particularly among the lower classes, is mainly responsible for this condition. Two other factors are also important in this connection, atmospheric changes and the habit of appealing to the hospital when the disease is so far advanced that there is hardly any possibility of recovery.

Fortunately for us neither cholera nor bubonic plague have so far visited Bolivia. It behooves the sanitary authorities of Antofagasta, Mollendo and Arica to do all in their power to prevent the introduction of these diseases, by the proper sanitation of their ports. In case cholera and the plague should visit Bolivia, the resolutions adopted by this conference will be carried into effect.

Municipal Action.

The municipality of La Paz, in the discharge of its duties, is doing the utmost for public sanitation. Its best work, however, is the damming up in a reservoir the waters from the Choqueyapa, on which the city of La Paz is built, as well as the waters descending from the glaciers of Huayna-Potosi and Chacaltaya. The reservoir holds sufficient water to feed the other city deposits with a constant flow of about 500 litres per second, night and day, at all times and in all seasons. From the reservoir the waters are sent to the Achicola filters, through two systems of steel pipes, one measuring 12,000 meters in length with a uniform interior diameter of 500 millimeters, and the other measuring 100,000 meters, with same interior gauge. Now the inhabitants of La Paz have a daily water supply of about 500 litres per head, twice as much as the daily water supply of larger capitals per capita. Besides this supply from the Milluni we also have that derived from Tembladerani, which has been rated as ideal, by the Director of the Chemical Laboratory of Santiago, Chile. The Municipal Council of La Paz is now engaged in the preparation of the necessary plans for a sewerage system costing about $6,500,000, thus insuring the almost perfect sanitation of La Paz.

The Municipality has also charge of the hospital service; one for men and the other for women, besides a lazaretto for both sexes for the isolation of such patients as may require it. Plans for a model hospital are now under consideration, to be erected on one of the best sites in the city. Conjointly with the

Hospital Service there is the public charity institutions with special sections for the treatment of the eyes, children's diseases, medicine, surgery, gynecology, etc., and a special section devoted to emergency cases.

The Bureau of Hygiene has a staff devoted to sanitary house to house inspection, reporting on contagious and infectious diseases, attending to the isolation of patients, disinfection of infected rooms, analysis of potable water, drinks, foods, etc., in accordance with the regulations.

The Municipality has also devoted special attention to the protection of society against venereal and syphilitic diseases. There is now a regulation in force regarding prostitution, prepared by Dr. E. Sagarnaga and myself.

REPORT OF DOCTORS ISMAEL DA ROCHA AND ANTONIO FERRARI, BRAZILIAN DELEGATES.

I. The Sanitary Police regulations and sanitary measures adopted by Brazil since the Fourth Conference, are the same as those in force in 1907, and submitted to the Third Conference. They have not been altered by new federal legislation. To this wise legislation Brazil owes the extinction of yellow fever in Rio de Janeiro, and the ever increasing success in its campaign against all contagious diseases.

II. Brazil has complied with the resolutions adopted in the preceding conferences, as shown in the publications we are distributing, and other official acts which cannot be included in this report because of their extension.

III. Brazil has complied with the Washington Convention of 1905, and the amendments to Art. 9, made by the Fourth International Sanitary Conference, and the Fourth Pan American Conference of Buenos Aires. Our Brazilian sanitary laws now in force, as shown by the evident good results obtained in sanitation all over the country, lead to the attainment of the final results aimed at by the convention and amendments.

IV. Nothing to report.

V. The sanitation of the city of Rio de Janeiro, capital of Brazil, and of the cities and ports with which there exists an international trade and commerce, has been completed in some instances and is being established in others, with the aid of the Federal Government. The following works may be mentioned:

1. Port of Manaos: Work done under contract between the Federal Government and the "Manaos Harbour Corporation," estimated at several millions of dollars. There have been in Manaos sporadic cases of yellow fever, against the spread of which such sanitary measures have been taken as have proven successful in Rio de Janeiro and Pará. The port works are rapidly progressing.

2. Port of Belem (Pará). The works contracted for by the National Government with the "Port of Pará Corporation," are progressing satisfactorily, at a cost of about one million dollars. Port free from plague, yellow fever or cholera.

3. Port of São Luiz (Maranhao). Works under the National Government, wharves, dredges, etc. No yellow fever.

4. Port of Fortaleza and Port Camousin (Ceará). Healthy belt. Works done by National Government to benefit commerce.

5. Port Cabedello (Parahyba). Healthy belt. Dredging done by National Government.

6. Same remarks apply to Port of Natal (Rio Grande do Norte).

7. Port of Recife (Pernambuco). A colossal undertaking, costing millions of dollars. Sanitary conditions most satisfactory.

8. Port of Bahía. The work progresses most actively. Splendid work, as good as that of Pernambuco. Good sanitary conditions, and a fine port.

9. Port Victoria (Spiritu Santo). Work under way. Good sanitation.

10. Port of Rio de Janeiro. Under contract with Walker & Co. To be completed very soon. Wharves extending a long distance along the water front. Mortality which not many years ago was about 56 per 1,000, now shows less than 20 per 1,000.

11. Port of Nichtheroy, opposite Rio de Janeiro on the same bay. Sanitary works progressing under contract.

12. Port of Santos (S. Paulo). Healthy. Works completed. A healthful, flourishing city. Large trade.

13. Port of Paranaguá (Parana). Healthy. Works of improvement progressing under contract. Estimated in several millions. Curityba, the capital of the State, is a prosperous city.

14. Port of Florianopolis (Santa Catharina). Healthy. Improvements in the smaller ports by the National Government.

15. Port of Rio Grande. Most healthy. Difficult navigation on account of shifting sand banks. Works of improvement under a French Company.

16. Port of Corumba (Matto-Grosso). A river port. Works under contract and progressing.

VI. The prophylactic measures against plague and cholera are the same as those contained in the report submitted to the Third Sanitary Conference of Mexico by Dr. Oswaldo Cruz. As to cholera, it has not made its appearance in Rio de Janeiro for many years. The sanitary police of ports is carried on, most successfully, in accordance with the convention in force.

VII. It is very difficult to tell when a person may be considered as an immune from yellow fever. As there is no serum against the disease, immunity may depend on acclimatization. Two years may suffice if it is a contaminated zone, but if the person goes to other countries, traveling destroys immunity if he returns to the contaminated place.

VIII. The national and international prophylaxis of tuberculosis, venereal diseases, smallpox, malaria, trachoma, leprosy, are shown in the tables we submit. Scleroma is unknown in Brazil.

IX. Bertillon's nomenclature has been adopted in Rio, as shown in our statistics. The monthly and annual mortality in the city of Rio de Janeiro, is shown in subjoined table covering the last 50 years, for periods of 5 years.

Years.	*Rate per 1,000 inhabitants.*
1859-1863	58.43
1864-1868	49.03
1869-1873	49.12
1874-1878	44.40
1879-1883	34.71
1884-1888	30.40
1889-1893	38.20
1894-1898	33.16
1899-1903	27.86
1904-1908	26.08

The period of 1909-1912 is lacking, but the rate is lower than 20 per 1,000. There was in 1908 a serious epidemic of smallpox, and only a few cases in 1909; only 1 case in 1910, and in 1911, 3 cases, up to the day of our departure from Rio de Janeiro.

As regards other ports these figures are for 1910.

1910.	*Rate per 1,000 inhabitants.*
Manáos	35.15
Pará	32.10
Nichtheroy	32.15
Santos (S. Paulo)	20.14
Paranaguá	18.22
Florianopolis	22.69
Porto-Alegre	26.55

X. Brazil has adopted the sanitary measures recommended at former congresses, including the convention signed in Rio, June, 1904, by the representatives of Argentina, Uruguay, Paraguay and Brazil, and now in force, after due approval by the respective governments.

Nowhere in Brazil are patients sent back to their places of origin; quarantine was suppressed in certain cases and enforced against cholera, yellow fever and plague. Attention has been paid to proper isolation of patients or suspected cases, to sanitary vigilance, disinfection, vaccination, etc., according to the disease. Communication cannot be suspended nor vessels denied port for sanitary reasons. Sanitary cordons are abolished. It has been fully demonstrated in Brazil that the principles adopted in the convention referred to are ample for the sanitation of any port.

XI. The sanitary laws on immigration are derived in Brazil from the general sanitary legislation. Besides these regulations, there is in the island of Flores, Rio de Janeiro, a modern, well-equipped, sanitary establishment for immigrants, with an excellent medical service, and all sanitary conveniences.

XII. The sanitary documents adopted in the Fourth Conference, do not alter in any way the documents adopted and in use by Brazil.

An accurate idea of the mortality from yellow fever in Rio de Janeiro may be had from the following table giving official figures:

	Cases.
1901	299
1902	984
1903	584
1904	48
1905	289
1906	43
1907	39
1908	9
1909	0
1910	0

These figures are most eloquent.

As regards bubonic plague, a few cases break out in the spring of the year, which however disappear before the application of appropriate prophylactic measures.

In conclusion we beg to submit the following figures showing the present population of Brazil:

Direction General of Statistics. Population of Brazil in 1910, estimated by Municipalities.

States.	*Population.*
Alagoas	863,522
Amazonas	421,702
Bahia	2,443,848
Ceará	1,001,929
Distrito Federal	914,610
Espirito Santo	331,269
Goyaz	303,851
Maranhao	614,893
Malto-Grosso	150,071
Minas Geraes	4,237,027
Pará	581,317
Parahyba	623,472
Paraná	530,228
Pernambuco	1,435,004
Piauhy	438,778
Río de Janeiro	1,057,275
Río Grande do Norte	317,199
Río Grande do Sul	1,554,000
Santa Catharina	399,510
S. Paulo	3,427,312
Sergipe	452,544
Territorio do Acre	76,065
Total population	22,175,426

REPORT OF THE CHILEAN DELEGATION.

Messrs. Delegates: In accordance with the program for this Conference, the Chilean Delegation has the honor to submit a brief resumé of the progress achieved by the country in public hygiene during the last few years, particularly the last two.

In connection with this paper an exhaustive report has been printed and distributed, under the title of "Public Hygiene and Assistance in Chile," and a sanitary exhibition has been installed, which will be shown to the Delegates, presenting some features of our sanitary progress.

The backward state of our sanitary legislation and the defective organization of our sanitary service, led us to concentrate our efforts during the last few years into the radical modification of that state of affairs.

A Sanitary Code is now pending before the Chamber of Deputies, embodying all the necessary reforms and providing for the required legislation on so important a subject. It is expected that the bill will soon be made into law, and that it will surely be productive of great benefits for the country.

The sanitation of cities and ports has been the subject of the Government's best attention. Adequate water works have been built for the cities of Copiapó, Vallinar, Coquimbo, Combarbalá, Ligua, Quilpué, Casablance, San José de Maipó, San Bernardo and suburbs, Carepto, Talca, Linares, Parral, Cobquecura, San Carlos, Chillán, Coelemu, Talcahuano, Concepción, Los Angeles, Nacimiento, Mulchen, Angol, Collipulli, Victoria, Traiguén, Temuco, Valdivia, and Osorno; 30 cities in all, with a population of over 350,000. The total cost of these works, most of which have been completed, is £603,559. In all of them allowance has been made for an increase in population of from 80 to 100 per cent, and the capacity is 150 liters a day per person.

There have been completed, or are nearing completion, the sewer systems of Antofagasta, Taltal, Serena, Curicó, Talca, Chillán, Concepción and Valdiva; 8 cities in all, at a total cost of £594,553.

The sewer system of Santiago, the construction of which was begun on July 10, 1905, and completed on December 20, 1910, serves an area of 2,500 hectares and its length is 370,000 meters. It has cost over 13,000,000 gold pesos of 18 d. At present over 3,500 are connected with the system. All these works represent an approximate expenditure of 30,000,000 gold pesos of 18 d.

The present water supply of the capital being insufficient, additional works are being carried on, which will cost nearly 12,000,000 gold pesos of 18 d.

In Valparaiso also additional water works are being constructed, the present supply being inadequate. The cost of these works is estimated at 5,000,000 gold pesos of 18 d. Mention should also be made of the definite paving of the streets of Santiago and Valparaiso, each costing £500,000 and £50,000, respectively. Another important work is the reconstruction of Valparaiso, the cost of which has reached 57,500,000 pesos paper.

Among sanitary works of another kind we may mention the sanitation of laborers' houses in Santiago and other parts of the Republic, with the indirect support of the Government. The legislation on this subject is based upon the law of February 20, 1906, which created dwelling boards in all Departments of the Republic. A later law authorized the Supreme Dwelling Board to raise a loan of 6,000,000 pesos for the construction of model houses for laborers. The said boards are empowered to carry on the sanitary inspection of dwellings, to order the execution of improvements and to close unsanitary houses. During the year 230 tenement houses, with 6,900 dwellers, were closed on account of unsanitary conditions. During the same period, the Supreme Board authorized the opening of 40 tenement houses with 2,500 rooms, costing 2,500,000 pesos. The same board has also inaugurated 100 houses for laborers in the town of San Eugenio, and is building many more in different wards of the capital. The Mortgage Bank (Caja de Crédito

Hipotecario) is also constructing 166 laborers' houses, at an expenditure of 1,700,000 pesos. The same institution has bought a large tract of land valued at 1,053,335, for the same purpose. It is also going to build dwellings for small farmers.

The government has already issued the call for bids for the construction of the Valparaiso port works, the approximate cost of which will be 31,000,000 pesos gold of 18 d.

The construction of the port of San Antonio will soon be undertaken at a cost of $1,175,000 pesos gold of 18 d.

The prophylaxis of the diseases enumerated in No. 8 of the program is not carried on satisfactorily for the reasons above stated.

Tuberculosis.—The prophylaxis of this disease is carried on specially by the anti-tuberculosis leagues of Santiago and Valparaiso, which have been in existence for some years and are subsidized by the Government.

In Santiago, besides the propaganda work done in different ways, and particularly to a special publication called The Social Hygiene Herald, there are public dispensaries and a maritime sanitorium in Cartagena, two hours by rail from the capital.

There is also in Santiago a special hospital for consumptives, with provision for 200 beds. In the other hospitals no cases of tuberculosis are allowed.

In Valparaiso, the prophylaxis of this disease is principally in charge of the Bureau of Propaganda against Tuberculosis. The city has also a dispensary and a hospital for consumptives, with a capacity for 250 patients; and the "Edwards Sanotorium" in Los Andes.

In Peña Blanca there will soon be opened a sanatorium with 130 beds.

Small-pox.—Not having a law making vaccination and re-vaccination compulsory, this disease prevails in an endemic form and appears with varying frequency. From 1880 to 1907, that is to say, during 28 years, the statistics record 144,000 cases with 73,528 deaths, or an average of 2,626 deaths per year. During that period 7,401,900 vaccinations were made.

Serious epidemics were recorded in 1880, 1886, 1890, and 1905, the latter with 10,615 victims. In 1910 there were 1,929 deaths from small-pox, and in the present epidemic at Santiago, 673 deaths have been recorded from January to October. In 1910 312,645 vaccinations were made, of which 111,122 were revaccinations.

For the preparation of animal vaccine we have an excellent institute, which has recently been made a part of the serotherapy section of the institute of Hygiene. In 1910 that section delivered to the Central Vaccination Board 78,380 tubes of virus. This body has charge of everything connected with vaccination.

Malaria.—It prevails only in a small part of the northern end of the country. Its influence in our demography is very insignificant.

Venereal Diseases.—The prophylaxis of these diseases is, by virtue of our political constitution, in charge of the municipalities.

At the present time this service is organized in the ports of Arica, Iquique, Antofagasta, Tocopilla, Taltal, Coquimbo, Valparaiso, Constitución, Talcahuano, Coronel, Valdivia, and Punta Arenas, and in the cities of Santiago, Talca. Curicó, Chillán, Concepción, San Felipe, Quillota, Angol, Los Angeles, Arauco, Rengo and Nueva Imperial.

The medical inspection of prostitutes is done bi-weekly, weekly or bi-monthly, either in houses or in special polyclinics. The isolation of contagious patients is not compulsory, but is enforced more or less rigidly in the various cities.

In Santiago there are polyclinics and special hospital wards for the treatment of these cases. In the national navy special attention is given to the treatment of venereal cases, with very satisfactory results.

In the army the rate of these diseases has been reduced from 25.3 per cent in 1907 to 14.5 per cent in 1910.

Trachoma.—This disease was imported into the country in 1881, apparently by a Spanish immigrant. From that year until 1889, 151 cases were verified in the eye infirmaries of Santiago. The percentage of trachoma patients in the total number of cases treated in the infirmaries of Santiago, has increased

from 0.5 per cent in 1895 to an average of 3.1 per cent for eleven years. The percentage in 1910 was 8 per cent.

The measures now enforced to prevent the importation of trachoma cases are confined to the medical examination of immigrants upon arrival.

Leprosy.—This disease does not exist in Chile. The only three cases so far recorded have occurred in foreigners. At present the only case existing (a negro from Jamaica) is isolated in one of the Santiago hospitals.

Scleroma.—Up to the present date 35 cases of this disease have been observed in different parts of the country.

Yellow Fever.—This disease is unknown in Chile.

Plague.—It appears in an endemic state in the northern ports, from Arica to Taltal, inclusive, since 1903. The first epidemic invaded Iquique (May, 1903) and successively the other ports, in subsequent years, as far north as Arica and as far south as Taltal.

At various times there have been small epidemics in Valparaiso, and isolated cases in Santiago. In both cities the focü were quickly destroyed. During the last two years the plague has appeared in the north under a mild form. In 1910 there were recorded in Arica, Pisagua, Iquique, Tocopilla, Mejillones, Antofagasta and Taltal, 232 cases with 123 deaths. During the first five months of 1911, in the same cities, there were 147 cases with 59 deaths.

The fight against this disease has been principally in charge of the Government, with the usual methods. In the campaign for the destruction of rats, mention should be made of the activity displayed by the Iquique disinfecting station and of the good results obtained at that place with the azoa virus. The Government, through the Institute of Hygiene, has distributed free of charge large quantities of Yersin serum and Haffkine vaccine.

Asiatic Cholera.—During the last years the Government has enforced vigorous defensive measures to prevent the importation of this disease. Among those measures we may mention the sending of a sanitary inspector to Republics of the River Plate; the purchase of Döcker barracks, field medicine chests, and field laboratories for the rapid bacteriological examination of the disease; the establishment of a sanitary station in Juncal for the sanitary surveillance of the frontier traffic, etc.

For the prevention of the introduction of exotic diseases through maritime ports there have been established a permanent sanitary station in Arica and a provisional one in Punta Arenas, which will be made permanent.

Mention should also be made of the disinfection services in the principal ports and of the twelve disinfecting stations in as many different places in the Republic.

With regard to the tenth subject of the program, we may say that the government, besides the general supervision which it exercises over all sanitary matters, has in case of an epidemic, the right to enforce for a definite period, and the consent of Congress previously obtained, the Law of Sanitary Police, passed on the 30th of December, 1896. By virtue of this law, the President is empowered to close the maritime and land ports; to prescribe quarantine measures, compulsory disinfection of passengers and cargoes, and to adopt such other measures which he may deem necessary for the eradication of any of the epidemics specified in the regulations. The General Health Ordinance of January 10, 1887, specifies the sanitary measures that may be adopted by the authorities.

The General Board of Sanitation, which was created to advise the Government in sanitary matters, and to study and submit health and prophylactic measures, and the departmental boards of sanitation, were abolished on May 23, 1900, and the Superior Council of Health was organized instead thereof. The provincial councils of hygiene, established by decree of January 19, 1889, were also reorganized and subdivided into the present Departmental Councils, which have been operating since the 10th of December, 1892.

The Law of Navigation, in force since June 24, 1878, and the Maritime Health Regulations of February 18, 1895, prescribe the measures of a permanent character that should be taken against epidemics; the inspection of vessels; the issuance of bills of health; the adoption of prophylactic measures that should be observed before, during and after the voyage; quarantine and

examinations; sanitary stations, sanitary tariffs, and the duties pertaining to sanitary authorities. On the other hand the government enforces as a national law the Sanitary Convention of Washington.

With regard to the information called for in the second subject on the program, we beg to report as follows:

Convention of Washington.

Section 34 of the Convention of Washington reads thus:

Packet boats shall be subjected to special regulations, to be established by mutual agreement between the countries in interest.

In Chile the ships of the Pacific Steam Navigation Co., of the South American Steamship Co., and of the Kosmos Line are required by a governmental decree to stop at Arica to be inspected by the Chief of the Sanitary Station, and after complying with this requirement then allowed to proceed south.

When the Sanitary Station is informed of a reappearance of plague in the ports of Peru, in Callao to the south, the passengers and crew are inspected and the ship disinfected with sulphur gas.

Article 35 of the Washington Convention reads as follows:

Without prejudice to the right which governments possess to agree upon the organization of common sanitary stations, each country should provide at least one port upon each of its seaboards, with an organization and equipment sufficient to receive a vessel, whatever may be its sanitary condition.

What has been said in regard to the Sanitary Stations shows the manner in which this article has been complied with.

With reference to Article 36 of the Convention of Washington we may say that Chile has in all its ports a sanitary board composed of the maritime governor, of the representative of the Army and of the port physician, which boards have charge of the enforcement of the sanitary measures prescribed by our maritime sanitary legislation, which dates from 1895.

The port physician inspects the crews and ships arriving at the port.

The sanitary condition of the population of the port is generally in charge of the physicians of the city.

Conference of Mexico.

Resolution 2. In the Chamber of Deputies there is under discussion a bill codifying the sanitary laws and measures of the Republic, amending and amplifying them.

Resolution 3. In the same bill vaccination is made compulsory to all inhabitants of the Republic.

Resolution 11. In Chile no immigrants suffering from trachoma or beriberi are admitted.

Resolution 12. The Sanitary Code which will soon become a law of the Republic the sanitary legislation is centralized.

Resolution 13. The Government railroad have a sanitary department which is in charge of the disinfection of cars, berths, cabins, etc., inspects the personnel, etc.

Conference of Costa Rica.

I Resolution. The Government prepares the anti-rabic vaccine and applies it free of charge in the Division of Seroterapy of the Institute of Hygiene. The Government furnishes free transportation to the capital to persons who have been bitten by dogs infected or suspected of rabies.

II Resolution. Chile is carrying on its work of sanitation of ports.

Resolution VIII. - In Chile there are several private associations or institutions engaged in the fight against tuberculosis, and they are supported and subsidized by the Government.

Said institutions also educate the public by means of lectures, publications, etc., regarding the manner of preventing the disease.

Organization and Work of the International Sanitary Information Committees.

The International Sanitary Information Committee of Chile was created by Supreme Decree No. 579 of May 30, 1908, in pursuance of the resolutions adopted by the Second International Conference of American States, held in Mexico in 1902, by the First International Sanitary Convention, held in Washington, December, 1902, and by the Third International Conference of American States held in Rio Janeiro, August, 1906, which latter, by paragraph b of Resolution 3, requests the Governments to "establish and regulate in each American country a Committee composed of three medical or sanitary authorities, under the direction of the International Sanitary Bureau established at Washington as an International Sanitary Information Committee with power to meet and interchange data referring to public health and for any other purpose that the Conference may think proper."

In the Third Sanitary Conference of Mexico it was resolved to establish an International Sanitary Bureau in Montevideo as a center for the Information Committee of the Argentine Republic, Bolivia, Brazil, Chile, Uruguay and Paraguay, the committees of the other Republics reporting to the Washington Bureau.

The Chilean Committee was constituted on June 23, 1908, and through the Department of Foreign Affairs its organization was communicated to the High Contracting Parties.

The Government of the Oriental Republic of Uruguay informed the Minister for Foreign Affairs the organization of the Sanitary Committee of Montevideo, under date of May 11, 1911.

The Chilean Committee is composed of Dr. Ricardo Dávila Boza, director of the Institute of Hygiene, Dr. Lucio Córdova, ex-secretary of Supreme Council of Hygiene, and Dr. Pedro Lautaro Ferrer, Sanitary Inspector of the Republic.

With regard to the 9th subject on the program, we may say that in the printed reports contain the demographic statistics for the principal ports and cities, and that the Bertillon system has been adopted in the Republic.

REPORT OF DOCTOR FERNANDO IGLESIAS, DELEGATE FROM COSTA RICA.

Mr. President; Gentlemen: When the Fourth International Sanitary Conference of the American Republics adjourned in San José de Costa Rica, several resolutions were adopted. I am happy to state that the Costa Rican Government has complied with most of these resolutions, notwithstanding the difficulties which have arisen due to the earthquake and destruction of the city of Cartago.

The Costa Rican Government, ever consistent with its established policies, has given particular attention to hygiene, by the enactment of important measures to prevent the propagation of contagious diseases, to decrease mortality, and the sanitation of the ports and towns of the republic. The following sanitary legislation has been enacted, some of a national and others of a municipal character.

(1) Surcharge of 5% on customs duties on goods imported by Puntarenas, to be devoted to sanitation of said port. (August 17, 1910.)

(2) To compel physicians to report to the authorities and the Medical Faculty, all cases of infectious diseases, or those suspected to be infectious, coming to their knowledge in the practice of their profession. (August 17, 1910.)

(3) To invest the annual sum of $25,000 (colones) in fighting against ankylostomiasis. (September 30, 1910.)

(4) Erection of buildings. (August, 1910.)

(5) Introduction of potable water in cities and towns, taken directly from the source.

(6) Decree of October 20, 1910, on sanitary service, creating the "personal observation card" for individuals coming into the country.

(7) Venereal prophylaxis. (Decree of November 25, 1910.)

(8) Closing the ports to steamers coming from Venezuela, Trinidad and Italy during the plague and cholera epidemics.

(9) To vest upon the chiefs of Marine Sanitation and Hygiene the authority of police officials.

(10) San José sewerage and drainage of a majority of the towns in the republic.

Fulfilment of the Resolutions Adopted by the Preceding Four Sanitary Conventions.

On March 4, 1911, a law was promulgated on the sanitary campaign against ankylostomiasis, whereby the annual amount of 25,000 colones is appropriated to defray the expenses of the physicians engaged in the fight, distribution of medicine gratuitously, etc. By this law, physicians are obliged to give monthly lectures in each town on general questions of hygiene, both public and domestic, and to explain the importance of the campaign against ankylostomiasis, pointing out the means to resist and prevent the disease.

Gastro-intestinal parasitic diseases in Costa Rica have two fields; among children under five years of age, their mortality reaching the alarming rate of 52.3%, and among those afflicted with ankylostomiasis. Dysentery is another disease which causes a large number of victims in Costa Rica. In view of these facts, and of the provisions of Sec. 1, Art. 3, of the resolutions of the Fourth Sanitary Conference, the Government and the Municipalities have directed all their efforts to provide all cities and towns with sanitary water service through a system of pipes, directly from the headwarters or source of the streams.

The sanitation, hygiene and vigilance of our ports has had special attention, and the country has had no epidemics of a general or alarming character to fight against. During the month of July there was a case of yellow fever in Siquirres, and the Government, the Medical Faculty and the U. S. Fruit Company, all took energetic and efficient means to fight against the spread of the disease. This was accomplished as well as the complete sanitation of the zone, with excellent and positive results.

By resolutions of May 20, September 5 and November 20, 1910, the ports of the country were closed to all vessels from the island of Trinidad, and from Venezuelan and Italian ports, and other suspected localities. The quarantine service was performed by the Sanitary Police, and immigrants were submitted to periodical observation. During the previous year 15 patients were sent to the quarantine station on the Uvita island, and of these 2 were cases of typhoid fever and 7 of malaria. The quarantine station has been thoroughly repaired. A special department has been built for fumigation, and four rooms for isolation; all doors and windows have been protected by wire screens, and a large covered water tank was also built.

In Limón death rate among children is about one-third of the general mortality. Malaria is prevalent, but has decreased, due to the use of petroleum. All privies have been closed up, or connected with the sewers; 67 back yards have been filled and all cess pools and swamps treated with petroleum.

On October 29, 1910, a decree (No. 5) was issued creating the "personal observation cards." By the provisions of this decree, every person arriving in the country is under obligation to report every day, during one week, to the town doctor, for examination; every other day, the second week, and every third day, the third week. At present there are under construction in Limón the customs warehouses, built of iron and cement, rat proof, as recommended by the Fourth Sanitary Conference.

The report submitted by the Costa Rican Delegation to the Fourth Sanitary Conference shows that deaths due to tuberculosis increase every year. Unfortunately, this increase still continues, and Dr. Cespedes in his last report states "tuberculosis has had a remarkable increase, mainly among the colored people."

There has been no epidemic at the port of Puntarenas. Malaria has almost disappeared, due to cleanliness and removal of all stagnant waters. The Marine Sanitary Service has always taken the precaution of examining every passenger entering the country.

The Bacteriological Laboratory has given excellent results. During the past year 4,407 analyses were made.

Death rate among children in the provinces was as follows in 1910: San José, 1,609; Alajuela, 1,101; Cartago, 1,040; Heredia, 463; Guanacaste, 393; Puntarenas, 243; Limón, 241; a total of 5,090.

The causes of mortality among children, embraced in the principal groups, according to the international classification, are as follows:

	1909.	*1910.*	*Difference.*
I. General diseases	557	408	—149
II. Diseases of the nervous system or other organs	838	861	23
III. Diseases of the respiratory organs	497	397	—100
IV. Diseases of the digestive organs	1,895	2,142	247
V. Other diseases	1,376	1,333	—43

TUBERCULOSIS.

Provinces.	*1909.*	*1910.*	*Difference.*
San José	104	74	—30
Limón	47	51	4
Heredia	41	49	8
Cartago	26	33	7
Alajuela	29	30	1
Puntarenas	18	27	9
Guanacaste	22	24	2
Cantons.			
San José	82	52	—30
Limón	47	51	1

Cantons	*1909.*	*1910.*	*Difference.*
Heredia	21	20	—1
Cartago	17	18	1
Esparta	7	15	8
Puntarenas	11	12	1
Barba	7	10	3
Cities.			
San José	60	41	—19
Limón	30	39	9
Heredia	10	13	3
Esparta	6	10	4
Puntarenas	16	9	—7
Liberia	10	9	—1

The number of fatal cases of tuberculosis in the entire republic was 288.

MEASLES AND SCARLET FEVER.

There were no cases of measles, and but 3 of scarlet fever.

TYPHOID FEVER.

Provinces.	*1909.*	*1910.*	*Difference.*
San José	48	33	—15
Alajuela	15	26	11
Cartago	11	8	—3
Heredia	6	7	1
Guanacaste	2	2	..
Limón	1	1	..
Puntarenas	0	0	0
Cantons.			
San José	31	23	—8
Alajuela	12	22	10
Heredia	3	6	3
Cities.			
San José	14	13	—1
Heredia	1	5	4

In the entire country there were 77 deaths from typhoid fever, or an increase of 6 cases over 1909.

CHOLERA INFANTUM.

Provinces.	*1909.*	*1910.*	*Difference.*
San José	159	227	68
Alajuela	114	114	..
Cartago	56	111	55
Heredia	31	50	19
Limón	1	9	8
Guanacaste	..	4	4
Puntarenas	2	..	2
Cantons.			
San José	108	139	31
Alajuela	16	41	25
Cartago	25	38	13
Grecia	44	27	—17
Alvarado	10	22	12
Atenas	11	20	9
Jiménez	14	20	6

Cities.	*1909.*	*1910.*	*Difference.*
San José	31	71	40
Grecia	7	9	2

As shown by the preceding figures cholera infantum claimed in 1910 twice as many victims as in 1909, in the city of San José.

Sanitary Department.

The Sanitary Department of San José has rendered great and important services. During 1910, 910 water closets were built or improved, 191 drainage pipes or sinks were built, 38 cess pools and 84 swamps were filled in or reclaimed, besides all the work in connection with the sewers.

The "Clayton" machine is used in San José for disinfection, particularly in cases of diphtheria, malignant dysentery and tuberculosis. In the disinfection of sewers, sinks, etc., 60,000 kilograms of "kreso" were consumed in 1910.

REPORT OF DR. HUGO ROBERTS, DELEGATE FROM CUBA.

Mr. President, Messrs. Delegates: In accordance with the Program adopted for this Conference, I have the honor to report upon our sanitary legislation passed since the last Conference, that is to say, since the latter part of 1909. I must call your attention to the fact that there is in Cuba a Department of Health and Beneficence. The importance given to sanitary matters in my country, made us feel the necessity of that organization, and since its creation, everything concerning so important a branch is entrusted to that Department, not only as regards domestic sanitation, but also concerning foreign relations, that is to say, quarantine and immigration.

For the regulation of interior sanitation, there are in force the Sanitary Ordinances promulgated in 1907 and reported to a previous Conference. For this reason I shall confine myself to enumerating only the amendments thereto.

These amendments refer to foods and beverages; construction of buildings; ventilation, drainage and sanitary works; hotels, lodging houses, cafes, restaurants, etc., schools, colleges, academies, seminaries, and other educational institutions; classification of obnoxious, sanitary and uncomfortable factories and establishments; hospital, infirmaries,, lazarettos, and clinics.

New chapters have been added on animal sanitary police; professions (specially dental surgery); wet nurses and ophthalmia neonatorum.

Sanitary laws being completely uniform throughout the whole country, it was found necessary to issue instructions to the 84 local health chiefs of the various districts, as to the interpretation of the law and as to the administrative procedure to be followed in each locality. For that purpose official instructions were printed, regarding not only the legal functions of the chiefs and personnel under them, but also their relations with the General Bureau and the Department.

As regards quarantine service or foreign sanitation, there are in force in Cuba the resolutions adopted by the Conference of Washington, Mexico and San José de Costa Rica. I do not speak now of the manner in which the resolutions of the named conference have been complied with because I will do so when reporting upon the second subject on the program. But I will take the liberty to state that in the opinion of the sanitary authorities of Cuba, the Washington Convention is deficient in some respects, particularly in regard to cholera and to the classification of vessels. Thus it seems necessary to revise the resolutions passed by that Conference. To this end I have confidential instructions from our Director of Health, Dr. Juan Guiteras. In this connection, I must point out to the fact that such necessity has been felt not only in Cuba, but also in several European nations, because in the Sanitary Conference that is about to be held in Paris they are going to revise the conventions signed in that city in 1903 and from which the Washington Convention has been copied.

I make these statements submitting them to the Conference should it deem it convenient to take them into consideration. I must state also that in order to prevent the introduction in Cuba of any person carrying cholera bacilli, from European countries with which we maintain frequent relations, we resort to the bacteriological examination by means of the rectal catheter, and only when a negative result has been obtained is the free entry granted.

If it is important to fight the diseases that ravage humanity, it is no less important to study and apply all means advised by science with regard to reproduction, conservation and improvement of humankind, that is to say Homiculture, a science recently constituted and unified, and which has for its object, among other things, the prevention of morbinativity and mortinativity, infantile mortality and morbility and puerperal diseases. The Executive has requested from the legislature an appropriation for the establishment of the "Hernandez-Pinard Palace of Homiculture," which, as our Secretary of Health puts it, "will serve not only in the case of women and children, but also as a school for mothers wherein women shall be taught in a practical manner the rules and cares that they should follow for the preservation of their health and that of their children."

Upon the principles of homiculture, our Health Department is about to undertake a special campaign against morbinativity and mortinativity, and infantile morbidity, for which purpose, Dr. Matias Duque, former Sercetary of Health, created a division of pediatrics in connection with the Bureau of Investigations and Research of the Department. Drs. Ramos and Hernandez, the originators of the idea in Cuba, have done considerable work on the subject, but it being too lengthy I shall abstain from speaking thereof. The Delegates, however, will find all information thereon in the reports made by those scientists. The importance of the work thus initiated is self-evident. Its ends are the increase of population and the improvements of the race.

For the purpose of bettering the conditions under which laborers live, our Government has built and is building "houses for laborers." These houses are provided with adequate conveniences, and the laborers may acquire title to them by the payment of a small monthly payment.

We are now free from quarantine diseases. Smallpox has been eradicated from our territory, where it has not appeared for the last ten years. As a whole, the sanitary condition of the Republic is excellent, as is shown by our death rate, which was 13.03 per 1,000 in 1909 and 15.57 in 1910.

With reference to the second and third subjects of the Program, I shall now enumerate what has been done by my Government in compliance with the resolutions passed by the Fourth Sanitary Conference, held in Costa Rica (see the text of said resolutions in the Appendix, Translations of the Fourth International Sanitary Conference, page 105).

I *Resolution.*—The Department of Health is actively engaged in fighting these diseases. Bilharziosis, in so far as we know, and exanthematic typhus, positively, do not exist in the Republic. Leprosy and typhus are quarantine diseases.

II *Resolution.*—Thanks to the centralization of the sanitary services of the Republic, there is a great deal of efficiency in enforcing the measures recommended by this Resolution, excepting plague, which disease has never threatened us directly. Rigid inspection is kept over suspected arrivals, which are duly disinfected. Educational propaganda has been carried out on the extermination of rats, and at the Las Animas Hospital we are carrying on experimental studies on the extermination of rats and fleas.

III *Resolution.*—The recommendations made in this resolution are complied with by the Government of Cuba and it may be said that they are embodied in our sanitary policy.

IV *Resolution.*—In order literally to comply with this resolution, it would be necessary that all nations should come to an agreement. In Cuba it is carried out to a certain extent, as vessels are very frequently treated in order to rid them of rats, specially when they come from places infected or suspected of plague.

V *Resolution.*—Cholera, small-pox and exanthematic typhus do not exist in Cuba. As regards other contagious or transmissible diseases, such as measles, scarlet fever, and diphtheria, etc., no person suffering therefrom is allowed to embark, because our Sanitary Ordinances provide that such patients be confined in special hospitals for infectious diseases, if they are not properly isolated.

VI *Resolution.*—This interpretation has always been sustained by the Cuban Government.

VII *Resolution.*—This is the sixth subject on the program, and I shall, therefore, speak of it at its proper place.

VIII *Resolution.*—This has been complied with in my country, and I shall take it up at the point where I report upon the fifth subject on the program.

IX *Resolution.*—These models of sanitary documents were submitted by the Cuban Delegation to the Fourth Conference and were adopted by the Government immediately afterwards.

X *Resolution.*—In compliance with the resolution my Government has appointed me as its Delegate to the Third and Fourth Conferences held in Mexico and Costa Rica, respectively.

XI *Resolution.*—It seems that the Information Bureau of Montevideo has not as yet been duly organized.

XII *Resolution.*—The Government of Cuba strives to render the medical profession most efficient for fighting any diseases liable to cause serious disturbances in public health, and for this purpose, there have recently been de-

livered in the Las Animas Hospital free lectures on bacteriology of cholera and other diseases, all physicians having been invited to attend.

XIII *Resolution.*—We have in Cuba a great number of public and private laboratories where the work referred to in the resolution is carried on.

The fifth subject on the program requires a report on the sanitary progress of the principal cities, in each country.

Havana, our capital, is now undergoing a great transformation which will render better still its sanitary conditions and will embellish it remarkably. During the last two years the sewer and paving works have been going on, although at present not very rapidly in order not to interrupt public traffic. In spite of the large quantities of earth that have been removed not one single case of typhoid fever has occurred.

Large extension works are being carried on in connection with our magnificent aqueduct of the Alvear Canal, in order to increase the water supply and carry it to every section of the capital. The works for dredging, draining and filling the port has also been started, and likewise the construction of splendid steel and cement wharves, which will facilitate the extermination of rats.

Cienfeugos, the second largest city in the Republic, is also nndergoing important changes. Sewer and paving works are now under construction. There is a fairly good water supply which is being improved.

We have under consideration the building of an immigration station, and the enlarging of the present floating quarantine station turning it into a land station, to be provided with every necessity to meet the increased traffic incidental to the opening of the Panama Canal.

In Nipe, a town on the northern coast and possessing the largest bay of the Republic, we are planning to establish a quarantine and immigration station.

In Santiago, the capital of Oriente Province, we have rebuilt the Cayo Duan quarantine station, and is soon to be completed, at a total coast between $65,000 and $70,000. An immigration station is also going to be built very soon. The city has two aqueducts and another is being constructed. The sewer and paving works are about to be finished.

The Cuban Government, fully cognizant of the influence exercised by social hygiene on public health, as well as of the decisive importance of the success that may be accomplished in fighting the epidemics that ravage humanity, has strived by all possible means to keep the public posted on the hygienic precautions that should be observed in order to ward off contagious diseases, specially against those which, on account of their epidemic nature or the number of victims that they may cause, should be more directly fought.

Our Sanitary Ordinances contain exhaustive instructions as to the manner of preventing such diseases, but as they can not be properly understood by the masses of the population, different pamphlets under the general title of "Popular Instructions" have been issued and widely distributed. Those recently printed relate to rabies, tuberculosis, cholera, etc.

The "Popular Lessons on Tuberculosis" were awarded a prize by the Tuberculosis Congress recently held in Barcelona, Spain. "Popular Instructions on Asiatic Cholera" have also been printed and distributed to prepare our public in case that disease now prevalent in some European ports, should invade our country.

With regard to venereal diseases, I have to say that prostitution is regulated in Cuba, it being considered as a necessary evil. Therefore, women thus engaged are subject to special regulations, which compel them to report at Division of Special Hygiene in order to undergo a periodic medical examination; those found suffering of such diseases are confined in a special clinic exclusively devoted to their treatment. These regulations also refer to the places where prostitutes may live, designating the districts set aside for the purpose; under them prostitutes are not allowed to occupy conspicuous places in theaters, nor to drive in open carriages, etc.

Bearing in mind the important role played by man in the transmission of venereal diseases, there has been established, as an annex of the Division of Special Hygiene, a dispensary for men, where those resorting to it voluntarily are properly treated. They are mostly laborers.

The seventh subject of the program refers to the "Criterion as to what constitutes immunity from yellow fever." For practical purposes of quarantine against yellow fever, those that may be considered as immune from yellow fever, are:

First. Individuals proving by means of official documents to the satisfaction of the authorities in the port of arrival, that they have suffered from yellow fever.

Second. Those who have resided for a period of ten years in a district where there has broken out yearly a focus of the disease during that period.

Considering that the ports and cities of the first and second class in the Island of Cuba were yellow fever focii up to September, 1901, those who have resided in said ports and cities for a period of not less than ten years prior to that date, are therefore to be considered as immune from the disease.

The adoption of systematic measures for the extermination of rats on board ships, is of vital importance since the discovery of the active role played by these rodents in the transmission of plague.

In Cuba, all ships arriving from ports where there has been plague are subjected "deratization," but it can be stated that such "deratization" has not been efficient in all cases, because in the greater number of instances we have to deal with ships completely loaded with merchandise which only make short stops in Cuba in order to unload a small part of their cargo. For this reason it can not be always guaranteed that the death-dealing gases reach every section of the ship. In all nations where ships are chartered they require that for the protection of passengers every vessel should observe certain conditions, and be provided with the necessary means to meet any emergency, likewise, every vessel is subject to periodic inspection. Now, then, the elimination of the presence of plague rats on board should be included among the conditions required of all ships to protect the health of those on board and prevent the spread of plague. In view of the preceding, I have the honor to move the following be adopted:

"Every vessel should be provided, together with the papers issued by the proper authorities, with a certificate also issued by a proper authority, to the effect that it has been totally ridden of rats while in ballast, for a period not exceeding six months.

"This document shall be indispensable, like all other papers with which a ship must be provided in order to engage in navigation.

"Nations participating in this conference shall allow a period not exceeding six months to vessels of their respective flags to comply the conditions wherein prescribed."

With respect to ships arriving from any locality infected with yellow fever, the Washington Convention specifies the treatment to which they shall be subjected in order to eliminate mosquitoes. Vessels with flies on board may, when necessary be subjected to the same measures, although these insects should not exist in a ship where cleanliness prevails regularly.

Our sanitary ordinances contain a chapter dealing exclusively on hygiene of railroads, street railways and omnibuses, because of the large number of persons traveling on such vehicles.

The principal requirements prescribed by said chapter are those referring to cleanliness in the transportation of passengers.

The last and ninth subject on the program refers to "monthly and yearly statistics of morbidity and mortality in the principal ports and cities; information in regard to the adoption of Bertillon's nomenclature."

Cuba can be proud of its death rate, which is one of the lowest in the world. In order to give you an idea of this interesting subject, I shall quote some extracts from the reports prepared by the Chief Statistician of the Health Department, for the years 1909 and 1910.

A résumé of the demographic-sanitary statistics for 1909 shows that there were recorded during the year 70,167 births, 28,832 deaths, and 12,552 marriages, which show an increase of 4,800, 471, and 394, respectively, over 1908.

As to the movement of incoming and outgoing passengers at all ports of the Republic—according to statistics furnished by the Department of Finance—there were 67,322 arrivals and 57,505 departures, or an increase in population of 9,817 persons. Comparing these figures with those of the preceding year, it is seen that, although there was an increase of 3,506 in the arrivals, the departures increased by 3,852, so that in the net gain there was a decrease of 346.

The total population of the Republic has been duly estimated at 2,199,859 inhabitants on December 31, which, in comparison with the census of 1907 shows an increase of 150,879 within the short period of two years. Examining

the rates given by each the mentioned demographic factors, we have that births are represented by 135.10; deaths, 13.03, and marriages, by 51.32; which, compared with those for the preceding year show the following increases: 9.57; 0.29, and 1.66; respectively.

I beg to call your attention particularly to the low total death rate of the Republic, 13.03, which continues placing on a very high level among the countries publishing demographic statistics, and which render Cuba as one of the most healthful countries in the whole world. On the other hand, these figures serve to show the fallacy of the assertion as to the unhealthiness of the tropical countries. The sanitary state of a country is measured, not by its climatic conditions, but the application of the measures adopted in accordance with scientific rules. Nevertheless, in spite of these gratifying figures, when analyzing the causes that have produced them we can not but lament some hundreds of deaths which could have been avoided if those scientific rules had only reached the popular masses, through education.

The daily average of deaths during 1909 was 78.99, as against 77.49 in 1908. Examining them with those of the preceding year, we have the following:

Increase—Disease of circulatory system, 9.40 against 9.31; bronchitis, broncopneumonia, and neuromia, 6.29 against 5.92; rickets, 3.46 against 3.13; cancer, 2.69 against 2.46; meningitis, 2.70 against 2.11; malaria, 2.04 against 1.99; Bright's disease, 1.76 against 1.67; senility, 1.74 against 1.53; cirrhosis of the liver, 0.88 against 0.75; grippe, 0.85 against 0.63; measles, 0.30 against 0.17.

Decrease: Enteritis (children under one year), 9.44 against 9.52; tuberculosis, 8.89 against 9.61; pulmonar tuberculosis, 7.88 against 8.53; tuberculosis in other organs and tissues, 1.01 against 1.08; tetanus neonatorum, 1.91 against 2.15; typhoid fever, 0.69 against 0.86; whooping-cough, 0.40 against 0.95.

Among the deaths due to non-pathological causes, but to accidental causes, I must mention those produced by the sinking of the S. S. *Nicolás Castaños;* those due to lightning or electrical currents, and those caused by typhoons and storms, specially in the Eastern region of the Island.

With regard to the year 1910, there were recorded in the Republic 13,446 marriages, 76,706 births, 3,243 still-births and children who died before being 24 hours old, and 33,844. As compared with 1909, there is an increase of 894 marriages, 6,539 births, and 5,012 deaths, and a decrease of 147 still-births.

With respect to the movement of passengers arrived and departed, there were in 1910 77,744 arrivals, and 57,924 departures, having a balance in favor of the population of 19,820. Comparing those figures with 1909 we have an increase of 10,422 in arrivals and a decrease of 419 in departures.

The population of the Republic for June 30, 1910, has been estimated at 2,161,671 inhabitants, according to the census taken by the Department of the Interior. These figures show an increase of 38,188 over December of 1909. The mortality in 1910 shows a coefficient of 15.57, quite higher than that of 1909, which was only 13.03. (For an explanation of the causes of death and detailed statistics, see Spanish Edition of the Conference.)

REPORT OF DR. LUIS FELIPE CORNEJO Y GÓMEZ, DELEGATE FROM ECUADOR.

In the first place I want to express the deep regret of the Government of Ecuador at having been prevented by unforseen causes at a last hour from attending the Fourth Sanitary Conference, held in the capital of Costa Rica.

Our geographical position in the very heart of the tropics, has been the principal source of the endemic diseases that have hindered the growth of our population, and for this reason there has been aroused in our public a strong sentiment for the sanitation of our cities, to which end the Congress of the Republic has just issued a law approving the gigantic project for the sanitation of Guyaquil, which includes: the sewerage of the city and the paving of its streets, water supply, extension of the embankment, and other important improvements, all of which constitute a colossal work in the execution of which the enormous sum of 50,000,000 francs will be invested. A responsible French firm has taken charge of this work, which will insure the sanitation of the principal port of the Republic.

The sanitary legislation of Ecuador is of two kinds: (1) sanitary laws and regulations, and (2) municipal ordinances on hygiene. The enforcement of the former is in charge of the Public Health Service, and that of the latter, of the various municipal police departments.

The first sanitary institution we had in Ecuador were the health boards, where organization was very heterogeneous, while on the other hand their scope was limited almost exclusively to the defense of ports against quarantinable diseases.

The aparition of plague in Guayaquil in 1908 initiated a new era in sanitary measures, and by executive decree of the same year the Special Sanitation Commission was created, which was later replaced by the Public Health Service by law of November 3, 1908, enacted by the Congress of the Republic.

The Public Health Service is constituted by a General Bureau located in Guayaquil and several sub-bureaus in the various provinces, under the general Bureau for the purposes of administration, and under the Cantonal boards, for purposes of financial management.

The General Bureau has issued the following sanitary regulations: (1) Campaign against small-pox; (2) making vaccination compulsory in the city of Guayaquil (this has been superceded by a law of Congress making vaccination compulsory throughout the whole country); (3) compulsory report by physicians of all infectious diseases; (4) campaign against mosquitoes; (5) isolation of confirmed and suspected yellow fever cases; (6) restrictions on the removal of infectious cases from one place to another; (7) restrictions on attendance of infectious patients in private, which is only allowed in exceptional cases; (8) special provisions for the removal of yellow fever or plague patients to Guayaquil from neighboring points; (9) restrictions on the burial of persons dying of plague or small-pox; etc., etc.

The maritime sanitary regulations are based upon the stipulations of the Washington Sanitary Convention.

Other hygienic matters, such as the inspection of markets, groceries, etc., street cleaning, removal and cremation of garbage, etc., etc., are entrusted to the municipal governments. On the other hand, the police departments render their valuable cooperation in helping the sanitary authorities enforce the sanitary laws and regulations.

Among other bills of a sanitary nature now pending in Congress, is one admitting the free admission of wire screens, crude petroleum, mosquito nets, quinine salts, for the purpose of promoting the fight against malaria and yellow fever.

Although at present my Government is devoting its best attention to the improvement of the statistical service, this important branch is still deficient. Our figures show that there is a marked difference between the demographic sta-

tistics of the cities situated on the inter-Andean plateau and that of the coast cities, the difference being in favor of the former, where, on account of the altitude and cold climate, there is no stegomya, and the anopheles can not breed. The same may be said with regard to tuberculosis in those cities.

The general death rate in the population of Quito, 80,000, is 2.37 per cent, the most frequent causes being bronchitis, pneumonia, and dysentery.

The percentage of mortality due to tuberculosis, and other epidemic diseases is as follows:

	Per cent.
Tuberculosis	0.40
Typhoid fever	0.03
Malaria	0.01
Small-pox	0.02

In Guayaquil, the demographic statistics for 1910 show a death rate of 41.08 per thousand in a population estimated at 82,000. The principal causes of death are as follows:

	Per cent of general mortality.
Tuberculosis	13.79
Malaria	9.78
Yellow fever	4.61
Plague	8.58

It is true that the death rate in Guayaquil is high, but it should be taken into consideration that this is due to the fact that there go to that port a great number of patients from other points of the Republic seeking cure in the hospitals of that city and that a large number of dead from neighboring places are buried in Guayaquil and recorded as taking place in that city. We hope, however, to materially decrease that death rate with the improvement soon to be undertaken.

The campaign against yellow fever, which is carried on most actively, is absolutely along the lines of the most modern theories and methods. It is carried on not only in Guayaquil but also in the surrounding towns, particularly in the railroad zone between Duran and Bucay, the largest focus of the disease, which the greatest number of patients to Guayaquil lazaretto. A provisional lazaretto will soon be opened in Duran for the isolation of the cases from that zone. On the other hand, the public is being educated on the prevention of the disease, by means of publications, posters, etc.

The campaign against plague is also carried on most actively in Guayaquil, controlling in an efficient manner every new outbreak. The complete destruction of rats is, however, difficult on account of the nature of our wooden buildings. A great improvement has been effected in Guayaquil, in the matter of building, i.e., that practically all the old wooden gateways have been replaced for others of stone or cement, thus rendering them rat proof. We will gradually do the same thing with the ground floors of the houses so that no rats can live under them. The general sanitary condition of dwellings has likewise been improved, and the campaign against the rodents is energetically enforced.

The lazarettos are under the control of a medical director and a staff of interns, composed of senior medical students. Besides the lazarettos for yellow fever, plague, and small-pox, which are managed by the Health Service, this bureau has established and maintains an observation Hall in the General Hospital, where all patients admitted to that institution are carefully examined before being assigned to the respective wards. All the lazarettos have been built along the most modern lines. In the plague lazaretto there has been established a bacteriological laboratory for the verification of all cases and the systematic examination of rats.

The small-pox lazaretto has been closed for the last two years, there having been no new cases during that period. We may, therefore, consider this disease as having been definitely stamped out from Guayaquil.

The maritime health section is under the Port's Physician.

The Board of Municipal Charities has recently opened the Institute of Ani-

mal Vaccine, built in accordance with all modern requirements; it will furnish the whole Republic with the virus as soon as the law of compulsory vaccination shall have been passed by Congress. The great Municipal Chemical laboratory has also been recently inaugurated, and is in charge of the able German physician, Dr. Robert Levi.

The municipal government of Guayaquil established several years ago two crematories, which are regularly operated for the destruction of garbage.

There are in Guayaquil several modern hospitals, splendidly equipped. The General Hospital is provided with clinical, chemical, bacteriological, electrical and radiographic laboratories.

Through public charities under the initiative of the great philanthropist and distinguished physician, Dr. Leon Becerra, there is maintained at Guayaquil the Society for the Protection of Children, founded several years ago, with a medical dispensary for children, where assistance and medicine are furnished free to the poor.

For the public school there is a Bureau of School Hygiene, which is charged with the inspection of the health condition of teachers and pupils, and issues hygienic rules and advice as to the preservation of health.

The sanitation of other cities is also properly looked after by the respective sub-bureaus of health. In Quito specially, the sanitary conditions have improved considerably.

I have taken the city of Guayaquil as the basis of my report in order to show the sanitary and hygienic improvements that have recently been effected in Ecuador, and also to let you know what we are doing to accomplish the complete sanitation of our principal port, which will soon be realized in view of the success so far attained.

Now then, gentlemen, a country which thus strives to improve the hygienic conditions of its ports, enforcing sanitary measures of inestimable value and with evident success in order to save its own nationals and in order not to constitute a menace to the health of others, deserves not to be excluded from the benefits of the laws, wisely issued and jointly adopted by nearly all the American nations.

Today Ecuador's commerce suffers considerably on account of the stringent restrictions enforced against its principal port; there are no longer to be seen the numerous ships of all nationalities that formerly promoted our national commerce. The few vessels that are compelled to touch in Guayaquil moor at a place separated by a distance of 2,000 meters from the commercial center which renders loading and unloading difficult, and hinders the passenger traffic.

On the other hand, the steamers plying between Panama and Valparaiso have been obliged to do away with the stop at Guayaquil because their passengers in transit would be considered as coming from an infected port and placed under quarantine for the mere fact that the steamer touched at a distance of over 2,000 meters away from the city and loaded and unloaded under quarantine.

This procedure, which attacks directly our national interests and works to the positive detriment of continental commerce, compels Ecuador to request this Conference, through its Delegates, that the severe sanitary restrictions imposed against the port of Guayaquil be attenuated and made to conform with the reasonable prescriptions wisely stipulated in the Washington Convention.

As to the important subject as to what constitutes immunity from yellow fever, I believe that if a person has lived for twelve years in a focus of the disease without contracting it he may be considered as immune therefrom.

The defense against venereal diseases is a subject which demands the best attention of all Governments. I believe that the regulation of prostitution is the most effective means to prevent the spread of such diseases; and at the same time a propaganda should be carried on in order to educate the public as to the evils therefrom and as to the manner of prevention.

REPORT BY DR. JUAN B. MIRANDA, DELEGATE FROM EL SALVADOR.

Mr. Presidente: Messrs. Delegates: The Republic of El Salvador, whose Government has conferred upon me the honor of representing it before this Conference, has, in so far as possible, complied with the provisions adopted by the previous conferences.

The Salvadorean Government's constant aim has been and is to enforce in a practical way all health laws and regulations tending to the sanitation of cities, ports and towns and to safeguard the lives of their inhabitants. The Chief Executive fully realizes that, by giving the best attention to all public sanitary measures, he not only benefits the material interest of commerce, but also renders a deserved tribute to the Science of Life, which is the unanimous aspiration of humanity.

It is a well known fact that there is in force in El Salvador since 1900 a Sanitary Code which contains all sanitary regulations and provides for all measures that should be taken in case of an epidemic, whether imported or originated in the country. It contains also hygienic regulations for railroads, Hotels, barber shops, church, and other public places; and for the sale of liquors, beverages and foodstuffs.

Vaccination is compulsory, and medical inspection of schools and other educational establishments is periodically carried on.

Yellow fever, which was formerly rather frequent, has practically disappeared.

Malaria, which until recently used to cause numerous victims, has decreased considerably; this endemic disease prevails only in the coast. The Government enforces all measures recommended by science in order to fight the disease.

In order to fight tuberculosis, which is responsible for high death rate, there have been organized associations, which are efficiently supported by the Government.

For the purpose of educating the people in matters of hygiene, popular pamphlets are published and freely distributed, showing the methods of preventing and curing tuberculosis and other infectious diseases. Large posters are also fixed in conspicuous places for the same purpose.

The water supply of cities is also the subject of the Government's particular attention.

There is a Board of Health vested with ample authority to look after the public hygiene of the Nation.

REPORT OF THE GUATEMALAN DELEGATION, COMPOSED OF DR. SALVADOR ORTEGA AND JULIO BIANCHI.

Messrs. Delegates: In pursuance of the provisional program for this Conference, we have the honor to submit the following report:

I.

Most of the sanitary provisions and regulations mentioned in the following were enacted in 1908, but did not become effective until the beginning of 1909. This is the list:

Regulations governing bakeries.
do do barber shops.
do do butcheries.
do do street cleaning.
do do bathing establishments.
do on compulsory report of infectious diseases, and special prophylactic measures for the prevention of small-pox, scarlet fever, diphtheria, typhus, etc.

Bilharziosis is unknown in Guatemala.

Leprosy is comparatively rare, from twelve to fifteen lepers being treated annually at La Piedad Asylum; specially maintained for lepers.

One confirmed case of rabies was observed last year in the capital. The regulation ordering the capture of all stray dogs and compelling owners to keep their dogs muzzled has had a successful result.

Exanthematic typhus worked havoc during some time, principally in the army. Thanks to the disinfection of all equipments and harnesses it has now almost totally disappeared.

Anchylostomiasis prevails in the following places: Chocolá, Chitalón, Trapiche Grande, Ixtapaca. Various pamphlets prepared by the Faculty of Medicine on the manner of contracting and preventing the disease have been widely distributed among the farmers in those places. This disease, however, has never appeared in considerable proportions.

II.

To improve the sanitation of ports Health Physicians have been appointed in the principal ones (San José, Puerto Barrios, Livingston, and Champerico), whose principal function is to prevent the importation of such diseases as cholera, yellow fever, and plague. For the same purpose, Puerto Barrios will soon be provided with Panama iron tanks, which are mosquito proof, and the city is to be supplied with water from the Escondido River.

Through lack of bacteriological experts, there have not yet been established any laboratories in the ports.

The crusade against mosquitoes is carried on most vigorously. By means of pamphlets and posters, the public is being educated with regard to the transmission and prevention of malaria and yellow fever. The customs duties on quinine salts, formaline, mosquito nets, and wire gauze have been abolished.

In all public schools the pupils are taught how to guard against yellow fever, malaria, and tuberculosis. Popular lectures with lantern slides are held for the same purposes.

In all the ports of the Republic special care is taken to prevent the embarkation of persons suffering from infectious diseases. In Puerto Barrios, our principal port, nobody is permitted to embark unless he produces a certificate to the effect that he is vaccinated and in good health.

Although plague and cholera do not exist in the Republic, publications have been distributed showing the manner of preventing those dread diseases.

In order to be prepared for an invasion of yellow fever or plague, several Clayton apparatus have been imported for the destruction of mosquitoes and rodents.

In order to comply with the recommendation regarding experts on parasitology and pathological anatomy, the Government has sent several physicians to Europe who are now studying those subjects and bacteriology, with a view to establishing in the country a Pasteur institute.

The Government has adopted the models for sanitary documents recommended by the Conference of San José de Costa Rica.

III.

The movement of the population in the capital and its suburbs during the last two years was as follows: 1909—births, 3,178; deaths, 3,667; 1910—births, 4,754; deaths, 4,188.

The principal causes of death were as follows, with numbers of death:

	1909.	1910.
Intestinal worms	315	228
Pneumonia	302	...
Tuberculosis	325	230
Small-pox	216	...
Pulmonar catarrh	178	149
Dysentery	...	84
Whooping cough	...	10
Typhoid fever	...	17

The movement of the population in the whole territory of the Republic was as follows: 1909—births, 69,943; deaths, 52,160. 1910—births, 74,498; deaths, 35,077. Thus, the increase of population in 1909 was 17,783, and in 1910, 39,421.

IV.

June 8, 1906, may be considered as the starting point of the work to improve the sanitary conditions of Guatemala, as on that date the Supreme Board of Health was created. This body is governed by the Organic Code of Public Health, which contains also all the provisions of the Washington Convention of 1905. Besides the Supreme Board, there are the Departmental and local boards.

To prevent the propagation of infectious diseases, we have a lazaretto and a public disinfection station.

In the lazaretto, which is located in the suburbs of the capital, are confined all cases of infectious diseases. This establishment renders important services, as, for instance, in the small-pox epidemic of 1908-9 there were treated 1,380 cases, of which 31 per cent died.

In order to guard the nation against the invasion and propagation of this dread scourge, which in the epidemics of 1883-84 and 1890-91 caused over 80,000 victims, the present administration ordered recently the establishment of an Institute of Animal Vaccine, thanks to which the epidemic of 1908 did not assume alarming proportions. Since its creation and up to June 30, 1911, the Institute has manufactured 1,314,689 doses of virus. During the year 1909, there were made 1,783,365 vaccinations. When the Institute of Vaccine was opened there had been already imported from abroad large quantities of virus. This accounts for the fact that during 1909 alone there was more vaccination than the number of doses manufactured in the country.

The epidemic that appeared recently in several departments of the Republic was fought by 24 commissions of physicians and students, who were provided with everything necessary for the organization of lazarettos and for proper treatment of patients.

Among the inhabitants of the Republic we sincerely believe that there are very few who have not been vaccinated, not only because vaccination is compulsory, but also because the authorities and physicians have always cooperated in order to carry out this most important measure.

There is a well organized street cleaning department in the capital, which is also charged with the removal of refuse and garbage from houses. All the refuse thus gathered, as also all dead animals, are incinerated in the Municipal Crematory, inaugrated in 1908 with machinery from New York. It has a capacity for 15 tons of garbage per day.

One of the most important improvements in the capital has been the repaving of the streets. The old sewer system is gradually being replaced with a new one. The city is provided with an abundant and excellent water supply, which will soon be further increased.

In other cities of the Republic sanitary improvements are being carried with great activity.

V.

The old regulations on prostitution being deficient, new ones have been drafted which fully meet all the requirements of modern hygiene. We can not report upon them because the Government Attorney has them still under consideration.

REPORT OF THE DELEGATE FROM MEXICO, DR. JESÚS MONJÁRAS.

1. *Laws of sanitary police and health measures adopted since the Fourth Conference.*

After the Fourth Conference, held in San José de Costa Rica, the President of the Republic, by authority of Congress, issued the following legal provisions:

(1) Declaring as infected certain ports which had been invaded by cholera.

(2) Providing that only Tampico, Veracruz and Progreso should be opened to vessels coming from said infected ports, and that on other ports on the Gulf of Mexico should be closed to arrivals therefrom.

(3) Providing that Coatzacoalcos shall be opened only for the purpose of unloading vessels.

To enforce the above provisions, the Supreme Board of Health issued pertinent regulations.

(4) Decree reorganizing the Mexican Red Cross. This institution has been entrusted also with the assistance in cases of public calamities.

2d.—Compliance with the Resolutions Adopted by the First, Second and Third Sanitary Conferences.

In the reports submitted by the Mexican Delegations, to those Conferences an account is given as to the manner in which the resolutions of each previous conference had been complied with. So that in the present report I shall confine myself to the resolutions of the Fourth Sanitary Conference of San José de Costa Rica.

With reference to the first of these latter resolutions, I have to state that the measures of isolation and disinfection prescribed in the Sanitary Code and its regulations, are applied to all cases of infectious diseases. With regard to rabies, I will say that there are in Mexico several anti-rabic institutes, similar to the Pasteur Institute of Paris, where all anti-rabic infections are duly and carefully applied. The success of these treatments has been so complete that not one single infection of the thousands of cases that have been thus so far treated, has failed, and our statistics do not show one single case where an individual treated has shown the symptoms of the disease. All cases of rabies occurring in animals are duly verified by all known methods, and whenever possible by the Negree process. On the other hand the sanitary authorities capture all dogs in the streets; dogs owned by residents are required to be muzzled and tied.

Concerning exanthematic typhus, there are now being carried on in Mexico scientific investigations in order to discover the patogenic agent, the manner of transmission of the disease, and its serotherapy. To this end the government offers a prize of $50,000 for works leading to positive practical results. This competition is open to physicians and scientists all over the world. At the same time the Supreme Board of Health enforces energetic measures to prevent the spread of this dread disease.

Speaking of the II resolution, Mexico has improved or is improving the sanitary conditions of its first and second class ports, and of those which, by virtue of the Washington Convention are the only ones where may be admitted arrivals from localities infected from cholera, plague or yellow fever. Sanitary inspectors have been trained and laboratories established for the assistance of passengers suffering or suspected of any of said diseases, including such persons as may be bacillus carriers. Said ports are also equipped with modern sanitary stations and lazarettos. There are in the capital of the Republic fully equipped bacteriological laboratories, a pathological laboratory and a parasitological laboratory.

With regard to par. (b) of resolution II, I must say that in Mexico in order to construct a building it is necessary to obtain previously a permit from the Supreme Board of Health, which sees to it that the plans conform with all sanitary requirements.

With reference to paragraph (c) of the same resolution, it is strictly complied with in Mexico, and persons violating its provisions are liable to punishment as provided for in the Sanitary Code of the Republic.

The first of these answers covers what relates to paragraph (d).

Referring to paragraph (e), I will say that the campaign against yellow fever and malaria actively carried on in Mexico throughout the year, along the lines set forth in the report of the Mexican Delegation to the Third Conference. (See pages 207 to 211 of the Transactions thereof.)

As to resolution III, I will state that its provisions are strictly complied with; as also those contained in paragraphs (b), (c) and (d) of said resolutions, which are included in the prescriptions of the Sanitary Code and its regulations.

The requirements of resolution IV are strictly enforced in Mexico by virtue of the Maritime Health Regulations. Besides, all vessels engaged in the transportation of immigrants are equipped with Clayton or Marot disinfecting apparatus, as also are some of the vessels for the transportation of passengers. First and second class ports are likewise provided with everything that is necessary for the proper disinfection of ships.

With regard to resolution 5, the Sanitary Code and the Maritime Health Regulations contain provisions, which are strictly enforced, as to the requirements that should be observed before allowing passengers to board the vessel.

Concerning resolution VII, I will say that the sanitary authorities of Mexico, in order to declare a person immune from yellow fever, require that such person shall have suffered an attack of the disease. In this connection there are being carried on experiments to ascertain the true condition of immunity and prevention.

Reporting upon resolution VIII, I state that the Supreme Council of Health has distributed thousands of pamphlets, and has held illustrated conferences to educate the public in regard to the diseases referred to in the resolution.

As to resolution IX, the Supreme Board of Health has now under consideration, and will submit to Congress, a bill amending the Sanitary Code and its regulations, among which amendments are included the recommendations of this resolution.

Resolutions XI and XII have been covered in the answer to resolution II.

(5) Sanitation of cities and especially of ports.

This subject has been covered in the report of the Mexican Delegation, which appears in pages 218 and 219 of the Transactions of the Third Sanitary Conference.

(6) Prophylactic measures against plague and yellow fever.

Mexico has continued to enforce the same prophylactic measures of which report has been made to previous Conferences.

(7) What constitutes immunity from yellow fever?

This question has been answered in the paragraph relating to resolution VIII.

(8) National and international prophylaxis of tuberculosis, venereal diseases, malaria, trachoma, leprosy and escleroma.

This subject is covered in the answer to resolution I.

(9) Monthly and annual statistics of morbility and mortality in the principal ports and cities.

Mexico uses since 1892 the nomenclature of Bertillon (now internationally adopted). With regard to the monthly and annual statistics of the morbility and mortality of the principal ports and cities, they are kept regularly.

(10) Sanitary inspection of international, maritime and domestic traffic with regard to cases of transmissible diseases.

For the sanitary inspection of transmissible diseases, Mexico enforces fully the provisions of the Sanitary Convention of Washington, as contained in the Sanitary Code and its regulations.

(11) Sanitary immigration laws.

To answer this subject, I refer to the report of the Mexican Delegation to the Fourth Sanitary Conference.

(12) Data on the adoption of the maritime sanitary documents approved by the Fourth Conference.

This subject is covered by the answer to resolution XIV.

REPORT PRESENTED BY THE DELEGATE FROM PARAGUAY, DR. ROGELIO URIZAR.

Gentlemen: The Republic of Paraguay, although heretofore absent from these International Sanitary Conferences, has established its internal and external defense in accordance with modern methods. Its external defense, that is to say, its international sanitary police, is regulated under the agreements signed, first at Montevideo, and later at Rio Janeiro in 1904, with the Argentine Republic, Brazil, and Uruguay. Said agreements are copied from the conclusions reached at the Paris Conference of 1903.

The interior defense of Paraguay may be said to be in process of development. The republic being an unusually healthy country, the legislature has found it unnecessary to give much attention to health matters, except when once in a while some diseases appeared which required the enforcement of sanitary measures.

Formerly, there was in the capital a Board of Medicine which was later reorganized as a Board of Health, with more specialized duties. This Board was composed of a president, a secretary and several members, two of which were pharmacists. All were appointed by the Executive. The resolutions passed by the board were, therefore, belated and inefficient.

Consequently, by a law of Congress the board was in 1900 reorganized into a Department of Hygiene, something like a sub-Ministry of Public Health. The Director of the Department of Hygiene is to-day the highest sanitary authority in the country, and is under the immediate control of the Minister of the Interior. If the Constitution of the Republic did not, as it does, fix the number of cabinet officers, health affairs would by this time be under a new executive department.

The powers and duties of the Director of the Department of Hygiene are very ample, because he not only enforces the health laws, but also interprets them and recommends the adoption of such new measures as he deems necessary.

Under the Department of Hygiene are: (1) The National Institute of Bacteriology, in charge of the preparation of serums and vaccines and of the diagnosis of infectious diseases in the whole territory of the Republic, whether endemic or epidemic, and whether human or animal. As a division of the Institute there is a National Vaccine Conservatory which has produced enough virus to vaccinate almost all the inhabitants of the country, including several hundreds of Indians in the Chaco region. For the diagnosis in infectious diseases, the Institute is provided with a complete laboratory, where there are made cultures, inoculations, reactions, etc. Thus, Paraguay is fully equipped to comply with the clause of the sanitary agreement requiring the immediate notification and localization of foccü of infection.

(2) A section of the Department of Hygiene is also the division of disinfections and sterilizations, composed of a chief, six inspectors and several companies of guards, whose number may be increased whenever necessary. It is the duty of this division to: disinfect vessels; inspect and supervise the cleaning thereof; destroy rats aboard and fumigate the said vessels, and sterilize clothing, for all of which it is provided with the necessary apparatus and instruments. It is also charged with the disinfection of dwellings, utensils, churches, barracks, schools, theaters and other public buildings.

(3) The Division of Sanitary Inspection, under a physician of the Department, with a personnel composed of the hygiene inspectors of the Municipality of Asunción. This division is charged with the supervision of drug stores.

(4) The Isolation Division, which has in the suburbs of the capital several "houses of isolation," thus called to do away with the name "lazaretto," which is feared by the people. This division is also provided with an ambulance service for the transportation of patients. The use of these houses is almost exclusively devoted to the prophylaxis of plague.

With the above described organization, the sanitary defense of the country is effected under the following legislation:

(1) Law of compulsory vaccination, which has been in force for over 2 years.

(2) Law compelling physicians to report all cases of infectious diseases coming under their notice.

(3) Law creating a permanent annual appropriation for the expenses of the health service.

(4) Law creating the Department of Hygiene, and its regulations.

(5) Municipal ordinances in public buildings, vehicles, foodstuffs and beverages.

Under these laws the Department is authorized to issue such regulations as it may deem wise for the proper enforcement.

The prophylaxis of leprosy is a question that engages the best attention of the Paraguayan Government, because where ten years ago there were only a few cases imported from abroad, there are now entire families which are veritable leper colonies. I believe that it is high time for the American Government to reach an agreement on the prophylactic measures against this dread disease so widely scattered the world over. And I take advantage of this opportunity to move that the Fifth International Sanitary Conference pass a resolution recommending the countries where the disease prevails to collect minute and detailed statistics of the number of lepers in each country, and to establish leper colonies, like those maintained by the United States Government.

Like leprosy, tuberculosis was a disease almost unknown in Paraguay. But the beneficial climate of my country attracts thereto every year a large number of consumptives, who have generously spread the germs of so terrible a scourge. The Department of Hygiene is now exerting all possible efforts in order to fight the disease.

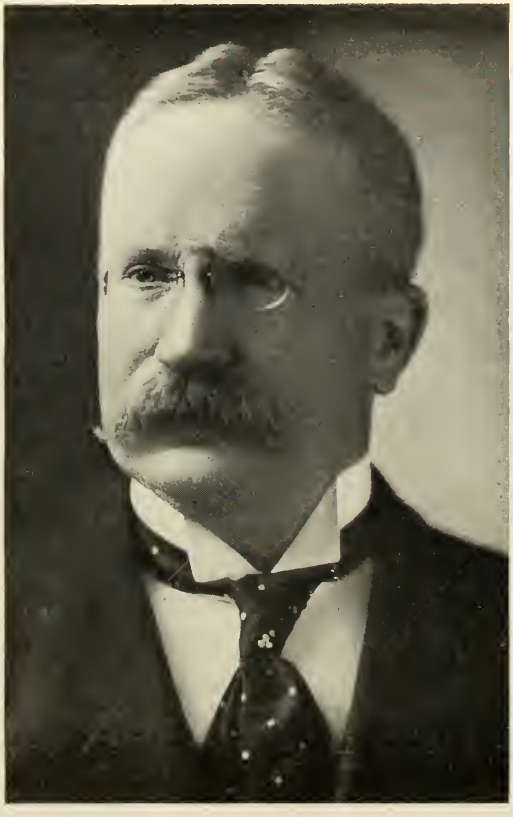
The prophylaxis of venereal diseases is carried on under municipal regulations, which tolerate prostitution. In the schools children are taught how to abhor certain diseases and the manner of preventing them.

Malaria, which is frequent in damp places, is so mild in Paraguay that it is usually cured by the single administration of a purgative. The chronic form is not, however, unusual, but it is as a rule curable. Death on account of malaria occurs only in the yerba mate plantations of the north and east, where the disease is endemic.

Ankilistuniaris is one of the principal causes of the weakening of the race, because as a rule it attacks the peasants living in places remote from towns and who do not know how to cure or defend themselves. For the purpose of educating the people with regard to the manner of infection and prevention the Department distributes pamphlets on the disease.

Gastro-enteritis and tetanus neo-natorum were until recently two of the greatest causes of death. In order to check the ravages of the former, the Department of Hygiene maintains special dispensaries where mothers are taught how to feed their babies, and while nursing they are kept under observation, and the children weighed and examined regularly. Tetanus neonatorum has almost disappeared since the municipalities provided for a sufficient number of municipal midwives who are charged with the duty of attending poor women.

Of the three worst scourges of humanity, cholera, yellow fever and plague, only the latter has gotten a foothold in Paraguay, but only in a form so mild that its death rate is very low. Only in two places of the Republic cases of plague occur once in a while; Asunción and Conceptión. In this connection and before closing, I must mention the good results obtained in Paraguay with the anti-plague sero-vaccination, the use of which should be recommended in epidemics.



THE LATE DR. WALTER WYMAN, SURGEON GENERAL, UNITED STATES PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.

President of the First and Second International Sanitary Conferences of American Republics, and Chairman of the International Sanitary Bureau of Washington.

He died suddenly on November 21, 1911.

We fulfill a painful duty upon paying from these pages a homage of respect to the memory of Dr. Wyman, apostle of public hygiene in the Western Hemisphere. His attractive personality, his incessant activities in behalf of public health, and, above all, the sincere admiration and sympathy which he always showed for the countries of Latin America, with whose hygienists he co-operated efficiently, won for him the respect and affection of the officials and other distinguished men of those nations, as well as of all those who had the privilege of coming in contact with him.

Dr. Wyman was born in St. Louis, Mo., in 1848. After graduating from the School of Medicine of that city, he joined the Public Health and Marine Hospital Service in 1876. Since then, devoted to the solution of hygiene problems, he soon attained a prominent position in the medical world. Once at the head of the Service he reorganized it and broadened the scope of its activities, to such an extent that it has now achieved a high degree of efficiency and usefulness.

United States has lost one of its most valuable men; Latin America a sincere friend, and his colleagues of the Sanitary Conference, the beloved brother, the respected teacher. But in our hearts his memory shall forever live, his remembrance shall guide the deliberations of our future conferences, and his spirit, fervently invoked, shall preside over all sessions of these gatherings initiated by his far-seeing mind.

May he rest in peace!

REPORT OF DRS. GREGORIO M. GUITERAS AND J. C. PERRY, DELEGATES FROM THE UNITED STATES OF AMERICA.

The Delegation from the United States of America to the Fifth International Sanitary Conference submitted the following reports in accordance with the provisions of the Program of the Conference:

SANITARY LEGISLATION IN THE UNITED STATES.

National.

Practically no new sanitary legislation has been enacted by the National Congress since the Conference held in San Jose, C. R. One exception is the provision made by the 61st Congress, 2d Session, whereby there may be admitted to marine hospitals for purposes of scientific study, cases of contagious and infectious diseases not to exceed ten in any one hospital at any one time. This measure is an important aid in the conduct of investigations already begun, and offers increased facilities for future investigations. Another exception is the provision in the laws of 1910 appropriating $40,000 to enable the President to check the prevalence of contagious and infectious diseases among the Indians, five tuberculosis sanatoria exclusively for persons of the Indian race having been erected in different parts of the country under this provision.

Different attempts have been made to secure the enactment of laws conferring further powers on the federal health organization, but none of these attempts have so far been successful.

State Legislation.

Quite a mass of far-reaching health legislation has been enacted in the last two years in the different States of the Union, the most important of which is briefly abstracted here.

Health Organization.—Considerable changes were made in the laws governing the sanitary organization of various States. Nevada, North Carolina and Porto Rico revised their former laws with a view to strengthening the State Board of Health, and increasing the efficiency of local health authorities. In *Virginia* the powers of the State Board of Health were greatly augmented, it being given authority to appoint local boards of health; in *Vermont* the sphere of action of local health officers was given more amplitude and that of local boards of health diminished proportionally; in *Wisconsin,* further duties were imposed on local health officers; the State Board of Health of *Maryland* was reorganized into a number of bureaus, a measure which is intended to facilitate the discharge of its duties; a number of specific powers in regard to sanitation were vested in the State Board of Health of *Kentucky;* in *California* the control of the State laboratory was definitely given to the State Board of Health, power given to establish branch laboratories in different parts of the State, and minor changes being made in the office force of the Board.

Communicable Diseases.—The tendency in the last two years has been generally towards increasing the number of reportable diseases and facilitating their control by the State health authorities. In New York a State laboratory was created for the study of cancer. The State Board of Health of Iowa was given far more latitude in the preparation of regulations governing quarantine and disinfection. The State Board of Health of Virginia was empowered to designate what diseases are to be reported in that State. A list of 11 diseases was immediately prepared by that board, and adequate instructions was issued for their control. The Sanitary Code of *Texas* was given force

of law by the legislature, thus compelling compliance with its numerous provisions relative to reporting, disinfection and quarantine of cases of the 25 diseases mentioned therein. Recent laws have added 10 diseases to those already reportable in Utah, 7 in the case of California, 3 each in the case of North Carolina and Rhode Island, 2 in the case of New Hampshire, and 1 each in the case of Iowa and Indiana, while in the exercise of their powers the State health authorities have added 13 diseases to their previous lists in Washington, 7 in Florida, 4 in Porto Rico, 3 in Pennsylvania, 2 in Idaho, and 1 each in Maine, New Jersey, South Carolina, Tennessee, and Wisconsin. In addition, revised lists of reportable diseases were issued by the State Boards of Health of Oklahoma (16 diseases), and New York (22 diseases), thus making at present eight States which have under more or less effective control 20 or more diseases; namely, California (31), Louisiana (20), Massachusetts (21), New York (22), Pennsylvania (33), Texas (25), Vermont (24), and Washington (22).

The unusual prevalence of some diseases or the realization by the public of their importance forced action as follows:

Hookworm.—Made reportable in Virginia, Pennsylvania, and Washington.

Poliomyelitis (anterior) was made reportable in Florida, Iowa, Idaho, New Jersey, New York, Massachusetts, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, California, Washington, Maine, Wisconsin. Investigations of the disease were also authorized by law in Rhode Island.

Pellagra.—Made reportable in California, New York, Pennsylvania, and Washington.

Ophthalmia neonatorum.—Made reportable in Indiana, District of Columbia, New Hampshire, North Dakota, Utah, and Tennessee, while provision for the distribution by the State Board of Health of a prophylactic to prevent its occurrence was made in Massachusetts and Vermont, thus making with New York and Vermont four States in which such prophylactic is furnished at public expense.

Rabies.—Made reportable in California and Florida, while provision was made for the free administration of Pasteur treatment to indigent persons in Kansas, Indiana, and Virginia.

Diphtheria.—Provision for the free supply of diphtheria antitoxin was made in the laws of Connecticut, Delaware, and Iowa.

Venereal Diseases.—Both California and Colorado require in recent laws the reporting of venereal diseases, this being the first action of this nature in the United States, and perhaps in America.

Tuberculosis.—The last two years have been marked by more or less comprehensive legislation in practically all parts of the Union with respect to tuberculosis.

In addition to the appropriations made for the support of sanatoria already in existence, appropriations for new State sanatoria were made in 1911 in Connecticut, Kansas, Montana, Nebraska, North Dakota, Texas, and West Virginia, while Missouri made provision for the erection of district tuberculosis hospitals, and New Jersey and Wisconsin authorized the establishment by the counties of such hospitals. Appropriations for the care of tuberculous patients were made in California, Louisiana, and Porto Rico, and for educational campaigns in California, Massachusetts, Mississippi, New Jersey, and Vermont, and for the acquisition of tuberculosis charts for use in the schools in Mississippi. State commissions for the study and recommendation of the best methods to combat the disease were created by law in Massachusetts, Missouri, New Jersey, Minnesota, Rhode Island, and Vermont.

Laws relating to the registration of cases were enacted in California, Mississippi, New Jersey (in this State a more satisfactory law being substituted for the old one), New Hampshire, and Rhode Island, while their registration was also required in the new regulations issued by the State health authorities in Virginia and Porto Rico; and the stipulation that the records will be strictly confidential made in Wisconsin.

In Ohio a new departure was made by authorizing the establishment of separate schools for children suffering with tuberculosis. A New Jersey law forbade expectoration on the floors or walls or trolley cars; while in Wisconsin expectoration in all public places was prohibited.

Drinking Cup.—An organized effort to suppress the promiscuous use of

drinking cups in public places was made with the result that during the year 1911 laws were passed prohibiting their use in Colorado, Connecticut, Idaho, Illinois, New Hampshire, New Jersey, Massachusetts, and Vermont, while regulations against them were also issued by the State Boards of Health in Kansas, Louisiana, Michigan, Mississippi, Oklahoma, Oregon, and Wisconsin.

The use of roller towels was forbidden by laws in Connecticut and Wisconsin, and by regulation in Kansas, and the use of suction shuttles in factories in Massachusetts.

Vital Statistics.—With a view to making the registration of births and deaths more complete, modifications to the existing laws were introduced in Alabama, Idaho, Illinois, Kansas, Kentucky, Massachusetts, Minnesota, Montana, Nevada, New York, North Carolina, Porto Rico, and Rhode Island. The most important of these laws are those of Idaho, Kansas, Kentucky, Montana, and Nevada, as their provisions will probably capacitate these States for admission to the "registration area" of the United States. Only minor changes were made in the laws of Massachusetts, Minnesota, New York, and Rhode Island, States which already belong to the "registration area." The law of North Carolina extends the collection of birth and death statistics to cities over 500 inhabitants instead of 1,000 as formerly.

Occupational Diseases.—A fair start towards ascertaining the prevalence of certain diseases in various occupations, and thus evolve remedies to avoid their occurrence, was made in 1911, when laws requiring the reporting of certain diseases of occupation was passed in California, Illinois, Michigan, New Jersey, New York, and Wisconsin. These laws apply mainly to those industries in which poisonous materials or other dangerous substances are handled by the employees. The Illinois law has the widest scope of all, as it also requires that the employers shall provide approved devices and methods for the prevention of the diseases in question.

Factory Sanitation and Hygiene of Employees.—Further protection to the health of employees was provided by laws passed in Illinois, Maryland, Massachusetts, New York, and Virginia, in which provision is made to secure the safety and sanitation of various industries. In Kentucky, New York, New Jersey, Massachusetts, Rhode Island, Maryland, Pennsylvania, South Carolina, and Illinois, laws were enacted regulating the employment of minors and women.

Poisons.—For the purpose of restricting the sale of poisons or narcotics, laws were enacted in California, Illinois, Indiana, Massachusetts, Mississippi, Montana, New York, Ohio, Oklahoma, South Carolina, and West Virginia.

Asexualization.—A law was passed in Iowa providing for the sterilization of degenerate criminals, thus making four States (California, Connecticut, Indiana, and Iowa) in which such provision is in force.

School Inspection.—A number of States passed laws for the medical inspection of children attending the public schools. These are Indiana, New York, Rhode Island, Utah, Vermont, and West Virginia.

Hotel Sanitation.—Regular inspections by the health authorities and similar establishments with a view to secure the maintenance of sanitary conditions are provided for in recent laws of Georgia, Idaho, Mississippi, Oklahoma, and Virginia.

Tenement Houses.—Regulation of the tenement houses which constitute chiefly the dwellings of the poor is aimed at in legislation passed in California, Connecticut, Kentucky, and New York, while the determination of insanitary dwellings, and as such unfit for human habitation, is contemplated in a Pennsylvania law.

Plumbing.—Examinations for plumbers are provided in the laws of Maryland, Ohio, and Pennsylvania, while their examinations are placed under the control of the State Board of Health in Massachusetts.

Nurses.—Laws establishing certain requirements for nurses and compelling their registration were passed in New Jersey, Maryland, Vermont, Idaho, and Wisconsin.

Pharmacy.—Changes in the laws governing the exercise of the pharmaceutical profession were enacted in Kentucky, New York, Indiana, Maryland, Rhode Island, Utah, and Vermont.

Embalming.—The provisions for the licensing of embalmers and the exercise of their calling were somewhat amended in Maryland, Vermont, and Wisconsin.

Water Supply.—A number of laws having for their object the prevention of water pollution were passed in California, New Jersey, Illinois, Louisiana, Rhode Island, and Wisconsin.

Milk Supply.—Provisions to prevent the contamination of milk were enacted in Colorado, Idaho, Louisiana, Massachusetts, Montana, New Jersey, New York, Pennsylvania, South Dakota, Utah, Vermont, and Washington; laws requiring the enforcement of the tuberculin test on cattle were passed in Maryland and Virginia.

Food.—Various amendments to the food laws were made in Georgia, Illinois, Indiana, Kansas, Massachusetts, Mississippi, Montana, New Jersey, Rhode Island, South Dakota, Utah, Wisconsin, Wyoming, California, Pennsylvania, and Vermont. The sanitation of food establishments, and the personal hygiene of employees handling or selling food is required in the laws passed in New Hampshire, Rhode Island, Illinois, and Utah (only in establishments selling or handling meat or meat products).

FULFILLMENT OF RESOLUTIONS ADOPTED IN PREVIOUS CONFERENCES.

The delegation of the United States to the Fourth International Sanitary Conference reported on those matters of special import relative to the manner in which the resolutions of previous conferences had been put in practice. It remains to report on the means employed in the United States and its possessions for the enforcement of the resolutions agreed upon at the last conference held in San Jose.

With respect to bilharziosis, no measures of protection have been taken, nor were they necessary, since the disease is an exotic one and practically never reported in the continental United States.

Rabies has been made the subject of special investigations, and certain definite measures have been taken for its control.

The disease prevails in many sections of the country, and it was one of the subjects for consideration at a conference of State and territorial health authorities held in Washington, D. C., April 30, 1910. As a result, there were adopted certain specific recommendations regarding the measures necessary for the prevention and eradication of rabies, which recommendations were subsequently published and distributed to health officers throughout the country. The apparent increase of rabies in the United States rendered necessary the placing of antirabic virus at the disposal of persons bitten by rabid animals, and on April 29, 1908, there was undertaken the preparation and administration of antirabic virus at the Hygienic Laboratory at Washington. Treatments at this institution are administered without charge, and in addition the virus is sent to State health authorities for final preparation and administration by them. During the fiscal year 1910, 128 persons were treated at the Hygienic Laboratory, and 777 treatments were sent out to the health authorities of 14 States. Twelve shipments of the virus were made to the Canal Zone.

Measures for the control of rabies, to be effective, must be State-wide in their application, and there must be uniformity of executive action by contiguous States if any lasting benefit is to be secured.

In the absence of federal law for the treatment and care of lepers these duties devolve upon State and local health authorities. Lepers who arrive at quarantine are, of course, amenable to the maritime quarantine regulations. Any American sailor who may be afflicted with the disease is entitled to treatment, but other persons are cared for by the localities in which they live. Provision has been made by the national government, however, for continuous and systematic investigations of leprosy, and these are being conducted at the national Leprosy Investigation Station in Hawaii. The leprosy bacillus has been grown in symbiosis and in pure culture. The disease has been transmitted to lower animals, and attempts have been made to obtain not only a vaccine but a curative serum. These attempts give some promise of success.

The continued absence of typhus fever from the United States has rendered unnecessary the taking of any special measures against the disease. Realizing its importance, however, and the possibility of its introduction, two officers of the Service were sent to Mexico City in November, 1909, to study the etiology and mode of transmission of the typhus fever prevailing there, and

to determine its similarity, if any, to Rocky Mountain Spotted Fever. These officers found from their studies that the disease was not identical with Rocky Mountain Spotted Fever, but probably identical with Old-World typhus fever. They succeeded in producing the disease in two species of monkeys, and found that it is not contagious in the ordinary sense of the word, but is conveyed by means of the body louse.

Since the last international conference, important measures have been taken in the United States for the prevention and eradication of hookworm disease. The new-world type of this organism having been discovered by Professor C. W. Stiles, in 1902, it has been the subject of continuous investigations in the Division of Zoology of the Hygienic Laboratory since that time. At the same time, a campaign had been carried on with the result that the public was aroused to the importance of the disease, both from economic and public health standpoints, and in October, 1909, a private citizen announced the gift of one million dollars to be used for the eradication of hookworm disease. The administration of this munificent fund was placed in the hands of a board of trustees, and matters have been so conducted as to bring about thorough co-operation between federal, State and municipal sanitary authorities, organizations, and private individuals. The State is recognized as the unit of organization. The board of trustees convinces itself of the existence of the disease within a State, and the State board of health then appoints an officer who takes general charge of the work of eradication and appoints assistants. It will thus be seen that the actual work is carried on under the supervision of the State health authorities. Funds are made available from the gift mentioned above, and the federal government acts in an advisory capacity and conducts investigations necessary to the success of the campaign.

Through public documents announcement has been made of the recommendations of the last conference with respect to the employment of necessary measures to secure the effective sanitation of seaports for the prevention of plague, cholera, and yellow fever. A special bulletin was issued on the subject of rats in relation to the public health, and special attention was invited to the necessity of rat-proofing buildings. In other words, it was urged that the rat must be builded out of existence. The extent of this work and the results following it in San Francisco and elsewhere on the Pacific Coast will be referred to in the special report on antiplague measures which is to follow. In the above-mentioned bulletin, attention was also invited to the importance of the use of properly constructed garbage cans. The providing of such cans and the enforcement of regulations relating thereto devolves entirely on private citizens and municipal authorities, and in San Francisco and adjoining cities in which plague has prevailed in the past, such cans have been provided in large numbers.

Properly equipped laboratories for the detection of plague infection among rats have been maintained at the more important seaports on the Pacific Coast and Hawaii, such as Seattle, San Francisco, Los Angeles, and Honolulu, and arrangements are contemplated which will extend this laboratory service to other ports as occasion may demand.

In the vicinity of some cities, such as New Orleans, active crusades have been conducted for the extermination of mosquitoes, and in certain of the States, as New Jersey, there exist statutes which provide for the determination of mosquito breeding areas and their proper drainage.

The measures contemplated in the third resolution adopted by the last conference are recognized by municipal authorities generally as being of fundamental importance, and in general they are already made the basis of sanitary administration in seaports and cities of the country.

In conformity with the fourth resolution, and as had previously been decided upon, there was adopted the following quarantine regulation:

"Vessels engaged in trade from ports infected with plague shall have such measures taken as will free them from rats not less than once every six months. This is best done by fumigation when the vessel is empty."

It is now recognized that rodents are the all-important agents in the transmission of plague in international commerce, and that the most essential antiplague measure is the freeing of ships of rodents. Studies are accordingly being made to determine the best method of accomplishing this without the destruction of cargo.

The provisions mentioned in the fifth resolution have long been embodied in the United States quarantine regulations, and the edition of these regulations, revised October, 1910, are entirely in conformity with the spirit of the resolution.

The dissemination of information regarding sanitation and the public health is a peculiar function of the federal government, and as such has been as fully performed as available appropriations would permit. As an example, it may be stated that during the fiscal year 1910 over 400,000 copies of sanitary and public health bulletins were distributed by the Public Health and Marine Hospital Service. Other bureaus and divisions of the government likewise distributed pamphlets, some of which undoubtedly had an indirect bearing on the public health. In order to discharge more fully this function, and to conform in larger measure to the eighth resolution, representations have been made for greater facilities for the publication and distribution of public health literature.

The models of sanitary documents approved by the last conference and mentioned in its ninth resolution have been adopted, and are used in quarantine practice.

On account of the cholera situation, which during the past summer has been acute, it was impracticable to conform to that part of the tenth resolution which recommends to the government represented that for future sanitary conferences there be nominated delegates who have assisted at previous conferences. It may be stated, however, that the officers designated as delegates on behalf of the United States to the present conference are sanitary authorities of the highest character and charged with most responsible duties in the protection of the public health.

With respect to the twelfth and thirteenth resolutions encouragement has been given by the federal government to original investigations in parasitology and tropical medicine. Studies of the former subject are being made by officers of the government, and systematic studies of tropical hygiene by private institutions are being arranged or carried on. As an example, may be mentioned the contemplated establishment of a School of Tropical Medicine at Tulane University, at New Orleans, La.

Finally, it may be stated that commendable progress has been made in the United States during the past two years by sanitary authorities generally, not only in the execution of necessary measures laid down by the last conference, but by means of investigations into the causes, methods of transmission, and measures necessary for the prevention and eradication of communicable diseases.

ORGANIZATION AND WORK OF THE COMMITTEE IN THE UNITED STATES TO REPORT IN CONNECTION WITH THE INTERNATIONAL SANITARY BUREAU OF WASHINGTON.

In conformity with the plan adopted at the Fourth International Sanitary Conference, it became necessary to submit the names of three gentlemen who would constitute a committee in the United States to act as delegates of the International Sanitary Bureau of Washington, and to form part of the International Sanitary Information Committee of the American Republics. The names submitted by Surgeon-General Wyman were those of officers of his Bureau who were then and had previously been engaged in the collection and preparation of sanitary information for distribution.

In the absence of the Surgeon-General, and by reason of seniority, Assistant Surgeon-General A. H. Glennan was at times in temporary charge of the Bureau of Public Health. Assistant Surgeon-General J. W. Kerr has administrative supervision over all scientific research relating to public health questions, and Assistant Surgeon-General J. W. Trask has charge of the Division relating to the collecting of sanitary reports and statistics. The work represented by these two latter Divisions are published in the form of Hygienic Laboratory Bulletins, Public Health Bulletins, and Public Health Reports. Copies of all of these publications, when issued, are furnished to diplomatic representatives of the American Republics at Washington, copies are sent to the Pan American Union, and access is had to them by the membership of the International Sanitary Bureau of Washington.

It would appear that the plan devised and adhered to by successive inter-

national sanitary conferences to provide for the collection and dissemination of information respecting health conditions in the Western Hemisphere is a wise one and deserving of further elaboration. The plan contemplates a committee of three physicians in each country to collaborate, and their efforts, together with the regular discharge of duties of sanitary officials, should result in the prompt collection of accurate data.

The names of the committees appointed by the several countries are included in the report of the Fourth International Conference held in Costa Rica, and it is hoped at this meeting in Santiago the work of these committees appointed by the different countries may be systematized so that the reports may be gathered regularly and transmitted, a part through the Bureau of Information of Montevideo, and a part direct to the Sanitary Bureau at Washington. According to the statement of President Ulloa at the Fourth Conference in San José de Costa Rica countries north of Ecuador should report to the Bureau at Washington, those to the south to the Bureau at Montevideo.

The United States, through its Public Health Service and the bulletins that it issues, is able to disseminate pertinent information affecting its own country, and many of these bulletins are sent to adjoining countries.

The Chief Sanitary Officers of any country here represented who is not on the mailing list and does not receive the bulletins will be placed thereon upon request. Many of these bulletins have heretofore been sent to the other Republics through their diplomatic representative in Washington, but a direct request from the Chief Sanitary Officer of each country would meet with a favorable response for the regular mailing of certain of these bulletins. In this connection mention should be made of the monthly bulletin of the International Office of Hygiene of Paris published in the French language. They contain most valuable information from all countries throughout the world. The bulletins are now available to those countries which contributed to the support of the International Office of Hygiene of Paris. The latest information concerning health activities in the United States as well as in other countries are contained in these bulletins. It would be well if each country would become contributory to this office in Paris so that these bulletins would be transmitted regularly to the principal sanitary authorities in each of the Republics.

SANITATION OF CITIES AND SEAPORTS.

American cities enjoy the greatest amount of decentralization; and excepting certain restrictions on taxation and indebtedness imposed upon them by their charters or the general laws, they are sole arbiters in all matters pertaining to internal improvements. There are of course certain sanitary requirements which they must observe, as otherwise the State authorities are usually empowered to intervene and take charge of the health administration, an action which would hurt the business interests of the city, and to which all communities are averse. In the case of epidemics, defective sanitary conditions, or impure water supply, liable to cause disease, the State Board of Health or the Federal Public Health Service sends on request experts to investigate the matter, determine the exact conditions responsible for it, and suggest remedies for their improvement or prevention. These requests are frequently received from various parts of the country, and as a result of the reports made by the officers conducting the investigation, sanitary works are often undertaken by the cities with a view to securing better water supply, disposal of sewage, etc.

Although the Federal Government purposely abstains from interference in local affairs, the enormous amount of national property scattered all over the country in the form of quarantine stations, marine hospitals, naval reservations, custom houses, army posts, post offices, etc., obliges the national authorities, outside of other considerations, to watch closely local health conditions, and gives them at the same time an excellent opportunity to exercise a beneficent influence on the health affairs of most cities. This influence is due to the high sanitary and hygienic standards maintained by the Federal Government in the grounds or reservations under its control, and also to the fear that if proper sanitary requirements are not enforced, such federal property as is located in the city may be appropriated to other purposes.

In a number of States, cities are required to provide such modern facilities as sewerage systems, adequate water supply, drainage facilities, etc., the expense to be met by taxes or bonds to be approved by the people at special elections, or distributed, pursuant to the provisions of the law, between the public treasury and the owners of the property benefited. Such improvements are going on all the time in practically every part of the country. Vast work in this line has been done in the most important cities, such as Baltimore, New Orleans, New York, Seattle, and San Francisco. To further accelerate this movement, laws have been passed in some States, as in Pennsylvania, requiring all cities in the State to erect plants for the disposal of their sewage in a fixed number of years. In those States with large centers of population hardly a legislative session goes by without the enactment of some law aimed at safeguarding the water supply, compelling the adoption of scientific systems of sewage disposal, or appointing commissions to study any existing unsanitary conditions, and make recommendations for their amelioration.

As some cities derive their water supply from, or discharge their sewage into, interstate or international waters, which are admittedly under federal control, there is a strong probability that the national congress may adopt measures to prevent the pollution of these waters, thus helping the cause of the many communities which are now struggling so persistently for better sanitary conditions.

On the whole there is steady improvement in the United States in the matter of sanitation of urban centers, the results of which will undoubtedly be reflected in lower morbidity and mortality rates.

PROPHYLACTIC MEASURES TAKEN AGAINST THOSE DISEASES SPECIFICALLY MENTIONED AND PROVIDED FOR IN THE SANITARY CONVENTION SIGNED *ad referendum*, WASHINGTON, OCTOBER 14, 1905.

In conformity with the sixth topic contained in the provisional program, it is necessary to review the present status as affects the United States of those diseases specifically mentioned in the International Sanitary Convention signed at Washington, October 14, 1905. These diseases are plague, cholera and yellow fever. As is well known, both plague and cholera are making pandemic invasions of the earth, while yellow fever, on the other hand, has receded until it may be stated that it has been less prevalent during the last two or three years than for any equal period in a quarter of a century. No detailed description will therefore be given of the measures taken against yellow fever, and particularly since report is subsequently to be made on the broad subject of immunity to this disease.

It remains to discuss both plague and cholera, which diseases within the last two years have been of great interest, not only to the United States, but to practically all other countries in the Western Hemisphere. The continued advance of these diseases is sufficient to attest the wisdom of the action taken at preceding conferences for their prevention, and to invite further international co-operation for their eradication.

PLAGUE.

It was stated in the report of the Delegates of the United States at the Fourth International Sanitary Conference that measures against plague were being continued on the Pacific Coast by the Public Health and Marine Hospital Service. These measures have been continuously carried on since that report was made, with the result that no cases of human plague have occurred in San Francisco since February, 1908, and no cases have been infected in Oakland since July 17, 1908. Only four cases have occurred in this period, and these were in rural districts. The last case of rat plague in San Francisco was found October 23, 1908, and in Oakland, Cal., December 1, 1908. At Seattle, Wash., no case of human plague has occurred since October 25, 1907, and but two cases of rat plague have been found since September 26, 1908. These rats were found, one February 8, 1910, and the other August 26, 1911.

Anti-plague measures have been continued in these cities and are being continued at the present time even though no cases of human or rodent plague have been discovered except as above mentioned. The measures have been

continued for the purpose of determining whether plague had appeared or was likely to reappear among rodents, and were made especially necessary in San Francisco and the bay cities by the prevalence of plague among the common ground squirrels of California, the first infected squirrel having been found in Contra Costa County in August, 1908. Since the discovery of this squirrel a continuous campaign of investigation and eradication has been carried on for the double purpose of determining to what extent the infection has spread, and to destroy infected squirrels as far as possible.

Squirrel-free zones have been maintained around the cities of San Francisco, Oakland, Berkeley, and Alameda, and have averaged from a mile or two to several miles in width. Camps of instruction have been maintained upon these zones for the purpose of instructing new employees in the methods to be used in squirrel destruction, and also for the purpose of instructing county authorities, ranch owners, farmers, and other individuals who desire to avail themselves of the opportunities thus afforded.

The investigations as to the prevalence of squirrel plague have extended over 45 counties of the State of California, and investigations have been made in several counties of Nevada and Oregon as well. No infection has been found in these latter named States.

During the past two years infection has been found among squirrels in 11 counties of the State of California. During the past year, however, no infection has been found in 4 of the counties that were previously infected, leaving 7 counties infected at present.

In September, 1910, a systematic campaign against squirrels was begun in the following manner: A portion of the force was used in the maintenance of squirrel-free zones and for the purpose of destroying known foci of infection. Another portion was sent further afield for the purpose of determining to what extent the infection had spread, and for the discovery of new and unknown foci of infection. This work has been practically completed for several months and a general campaign of squirrel eradication is now being carried on.

On March 13, 1909, the Legislature of the State of California passed an act which makes it incumbent upon property owners throughout the State to begin in good faith the destruction of all squirrels on their property, and the State Board of Health is authorized to make inspection to determine whether squirrels are present or not. When the presence of squirrels is reported by agents of the State Board of Health, notice is served upon the property owner to begin work. If work is not begun within a reasonable time the State Health Officer or the local Health Officer of the county in which the property lies proceeds to exterminate the squirrels and the cost of this work then becomes a lien upon the property.

The officer of the Public Health and Marine Hospital Service in charge of plague suppressive measures in California has perfected an arrangement with the State and county authorities by which a certain number of inspectors are appointed by the latter. These county inspectors work in conjunction with the employees of the Federal Government and are under the direction of the Service Officer.

Quite a number of counties have joined this movement and have employed inspectors, and as a result a joint Federal and County inspection is under way. Much interest is being manifested in the work by all parties concerned and favorable results are expected.

Since the report to the Fourth International Sanitary Conference 4 cases of plague have occurred. All these cases were infected from ground squirrels and no spread has resulted from any case. During the year ending July 1, 1910, 116,515 rats were collected and examined and none found infected. One hundred and thirteen thousand six hundred and fifty-five were caught and examined and 354 were found infected. During the year ending July 1, 1911, 127,948 rats were caught and examined and none were found infected; 126,125 squirrels were caught and examined and 55 were found infected. The reason so few infected squirrels were found during the year ending July 1, 1911, is, that the most of the work during the year was in the nature of a reconnaissance to determine how far the infection had spread. Now that eradication work is fairly under way, it is expected that the number of infected squirrels found will be materially increased. In fact, from July 1, 1911, to September 2, 1911, 78 infected squirrels have been found.

The fact that so few human cases of plague have occurred during the past two years, considering the extent of the infection in California, is very encouraging, as is also the fact that the extent to which infection has spread is known.

A squirrel-free zone is being created at the present time on the border of the infected area in order to check its further spread, and inasmuch as the efficacy of these zones has been proven in the case of San Francisco and the other cities there is reason to believe that the free zone in the rural district will be equally efficacious. This latter zone was made necessary for the following reasons:

As is well known the Sierra Nevadas are a large range of mountains which traverse in a general northerly and southerly direction the eastern part of the State of California; the common ground squirrel of California is found as far up as 7,500 feet elevation, but does not extend to a higher point, the average height of the mountains being probably 10,000 feet. These mountains were therefore considered as more or less of a natural barrier. Later, however, investigation has shown that there are several passes through these mountains, the elevations of which are less than the 7,500 feet mentioned, and the squirrels continue through these passes and connect with the squirrels on the eastern side. Prior to December, 1910, the San Joaquin River had been considered a natural barrier to the spread of the disease among squirrels on account of its size and on account of the fact that large and extensive swamps are present on both sides of the river, but in December, 1910, infected squirrels were found on the east side of this river at two points, so that the river can no longer be so considered, and the establishment and maintenance of the squirrel-free zone above mentioned was decided upon as the best means of preventing the spread of the disease further to the east.

In order to prevent the further importation of plague into the United States and to avoid all interruption of commerce, officers of the Public Health and Marine Hospital Service are detailed to Guayaquil, La Guaira, and to ports of Japan and China. These officers maintain a close supervision on all ships bound for the United States, and at frequent intervals fumigate vessels bound for the United States with sulphur for the destruction of rats and the other vermin aboard. The quarantine laws and regulations of the United States as revised in October, 1910, state in section 112, as follows:

"Vessels engaged in trade from ports infected with plague shall have such measures taken as will free them from rats not less than once in every six months. This is best done by fumigation when the vessel is empty."

With this regulation as a basis there has been inaugurated what is known as a "rat quarantine," and all quarantine stations of the Service have been directed to report to the Bureau at Washington the number of vessels which ply between plague-infected ports and ports of the United States, and are directed to fumigate these vessels for the destruction of rats and vermin at least once every six months, and oftener, if practicable.

Experience of several years in the fumigation of vessels in the Philippines has shown that if vessels are fumigated regularly at least once every six months, rats and vermin will be maintained at a low minimum, due to the periodical destruction of most of them, and also due to the fact that rats will not board vessels so treated.

The progress of plague throughout the world has been carefully followed during the last two years and necessary precautions have been taken to prevent the entrance of the disease. The occurrence of several cases of human plague in the county of Suffolk, England, the discovery that plague is endemic among the rodents of that vicinity, and the discovery of plague among rats in Wapping, a part of the port of London, are matters of interest that are now engaging the attention of the Public Health and Marine Hospital Service for the purpose of determining what influence or bearing these occurrences will have.

CHOLERA.

The delegation of the United States to the Fourth International Sanitary Convention of American Republics reported on the world distribution of cholera and the measures which were being taken by the United States Public Health and Marine Hospital Service against its introduction. That report covered the period ending June 30, 1909, and it is now desired to review the cholera situation from that time to the end of the fiscal year ending June

CHOLERA IN RUSSIA.

During the summer of 1909 cholera was distributed over a wide area, the city and government of St. Petersburg and the southern governments suffering the most. In St. Petersburg there were more than 6,000 cases and over 2,000 deaths. The disease prevailed in all parts of the city and cholera bacilli were found in the water of the River Neva, from which the municipal water supply is taken. With the approach of winter there was a subsidence in the disease, and from January 29, 1910, to May 8, 1910, no cases were reported. When the disease reappeared, the Bachmut province was first attacked, and from that point cholera spread over European Russia, attacking 216,796 persons, of whom 100,982 died, in the period from May 8, 1910, to February 4, 1911. Cold weather again brought a respite from the disease until April 21, 1911, when cholera again appeared in Russia. From that date until September 11, 1911, 1,045 cases and 579 deaths have been reported.

CHOLERA IN GERMANY.

An July 21, 1909, an American traveling in Europe died of cholera at Konigsberg, Germany. In September of the same year a fatal case occurred in Pakalisne, near Russ, in eastern Prussia. On September 22d, another fatal case was reported from the town of Stolzenhagen, 25 miles north of Stettin. In October, November, and December cases were reported at various places in East Prussia, but on December 30, 1909, Germany was officially declared free of cholera. Forty-four cases occurred during the outbreak. On June 23, 1910, a Russian immigrant from the Warsaw district died of cholera at the immigrant inspection station at Ruhleben, near Berlin. On June 27th another case occurred among immigrants, and in September cases occurred in Marienburg and its suburbs. The last cases reported from Germany occurred on October 9, 1910, since which time no cases have been reported in that empire. Thirty-three cases and sixteen deaths were reported during the 1910 outbreak.

CHOLERA IN SWEDEN.

On August 12, 1909, a case of cholera occurred at Stockholm, Sweden, in the person of a traveler who had arrived by steamship from St. Petersburg on August 10th. This is the only case which has been reported from Sweden in the present pandemic.

CHOLERA IN THE NETHERLANDS.

Two cases of cholera were reported at Rotterdam on August 20, 1909. The local health authorities immediately inaugurated vigorous measures to prevent the spread of the disease. In all, thirty-four cases and fifteen deaths occurred up to September 14, 1909, when Rotterdam was officially declared free from cholera. In 1910, one case occurred at Rotterdam on board a vessel from Russia, and since that time no cases have been reported from that city. During the 1909 outbreak the disease appeared in sporadic form at many places in Holland, and had it not been for the prompt and efficient measures which were promptly taken at the infected places, a more serious outbreak would have occurred. The wide dissemination of the disease may be accounted for by the presence of cholera carriers, of which a number were found.

CHOLERA IN BELGIUM.

Nine cases of cholera with six deaths were reported between October 26 and 30, 1909, at Boom, a town of about 17,000 inhabitants, situated 10 miles from Antwerp. Since that time no cases have been reported from Belgium.

CHOLERA IN THE PHILIPPINES.

Cholera was present in the Philippines throughout 1909 and 1910, but a determined effort was made to discover and isolate every case, and so vigorously has this been prosecuted that no cases were reported, either from Manila or the provinces for the first quarter of 1911. A case from Amoy, China, was apprehended at the Mariveles quarantine station May 25, 1911.

CHOLERA IN ITALY.

On August 17, 1910, cholera was reported in Italy. The cause of the outbreak is alleged to have been the embarkation at Brindisi of a party of Russian gypsies from Batum. They proceeded by rail to Trani, which appeared to be the primary focus of the epidemic. The infection spread to various towns and cities in the Provinces of Bari and Foggia, both in the region of Apulia. In late September the situation became worse and cases of cholera were confirmed bacteriologically and officially reported in Naples and Rome. By October 1st the disease had been officially declared in the Province of Salerno and town of Auletta, the Province of Sicily and towns of Palermo and Monreale. Mid-October found the Provinces of Avellino, Caserta, and Campobano also infected, and early November added the Provinces of Girgenti, Lecce, Caltanisetta, Perugia and Trapani to the list. Cases continued to be reported from Italy until February 4, 1911, from which time until June 8, 1911, when there was a cholera death at Reggio di Calabria. Since that time to September 2, 1911, 10,397 cases and 4,123 deaths have been reported from no less than seventeen different provinces.

CHOLERA IN AUSTRIA-HUNGARY.

On June 20, 1910, a case of cholera, apparently imported from Russia, was reported at Padwolococzyska in Galicia. August 31st two cases were reported at Vienna in persons recently arrived from Hungary. September 13th isolated cases of cholera were reported in eight villages from Kressburg to Mahacs, on the Danube. Later, cases were reported at Trieste, Laibach and Gratz, but the disease died down and no cases were reported from December 17 to May 24, 1911, when it reappeared in several localities, the bulk of the cases occurring at Trieste.

GEOGRAPHICAL DISTRIBUTION OF CHOLERA.

July 1, 1909, to June 30, 1911.

July 1, 1909, to July 30, 1910:

Asia.—Ceylon, China, India, Indo-China, Japan, Java, Korea, Manchuria, Persia, Siam, Siberia, The Straits Settlements.

Europe.—Belgium, Germany, The Netherlands, Russia, Austria-Hungary.

July 1, 1910, to June 30, 1911:

Asia.—Arabia, Borneo, Ceylon, China, Federated Malay States, India, Indo-China, Japan, Java, Korea, Manchuria, Persia, Siam, Turkey, Straits Settlements.

Africa.—Tripoli, Tunis.

Europe.—Austria-Hungary, Bulgaria, Denmark, France, Germany, Italy, Roumania, Russia, Servia, Turkey.

North America.—Canada,* United States.†

South America.—Brazil.

MEASURES TAKEN AGAINST THE INTRODUCTION OF CHOLERA FROM RUSSIA AND ITALY.

On account of the widespread character of the epidemic, particularly because of the conditions prevailing in Russia and Italy, the enormous emigration from these countries presented a quarantine problem which occupied the immediate and serious consideration of the Public Health and Marine Hospital Service of the United States. The measures instituted to prevent the introduction of the disease may be divided as follows:

1. Quarantine measures enforced at foreign ports of embarkation.
2. Those enforced during the voyage.

*At quarantine.

†All cases (except one at Auburn, N. Y.) were at quarantine.

3. Those taken at the various quarantine stations in the United States.
4. Special inspections for the detection of cholera made by Service officers engaged in the medical inspection of arriving aliens.
5. The immigration destination notification system.

QUARANTINE MEASURES ENFORCED AT FOREIGN PORTS OF EMBARKATION.

The measures enforced at the foreign ports of embarkation, so far as the present cholera situation in Europe is concerned, date from July 14, 1910, when a request was made through the Treasury Department for the resumption at certain European ports of the detention for five days of steerage passengers from the cholera-infected districts in Russia prior to their embarkation to the United States.

The enforcement of the provisions of paragraphs 30, 31 and 32 of the Quarantine Regulations of 1903 (paragraphs 29, 30, and 31, revised regulations of 1910) by the consular officers at Hamburg, Bremen, Antwerp, Rotterdam, and at continental and British ports dates from September 17, 1908, when the prevalence of cholera in Russia made it necessary to provide for the detention of steerage passengers for five days in suitable barracks and for the disinfection of their baggage at the ports of departure.

The regulations also provide that cabin passengers coming from cholera-infected districts embarking at clean or infected ports should produce satisfactory evidence as to their exact place of abode during the five days immediately preceding embarkation.

On January 8, 1910, these restrictions had been temporarily removed on account of the great diminution or almost complete absence of cholera in Russia, but, as stated above, they were resumed on July 14, 1910. On account of the steadily increasing spread of the disease a request, August 9th, that the consular officers at the ports above mentioned detain for five days prior to their embarkation steerage passengers from all parts of Russia, it being considered impracticable, not to say impossible, for all the consular officers to determine whether a given group of emigrants were from a district in Russia not infected with cholera.

Finally, on account of the general prevalence of the disease throughout the Russian Empire and the report of its appearance in Germany and in Italy a request was made through departmental channels on September 2, 1910, that the consular officers at the ports of Marseilles, Havre, and Cherbourg, in France, and the Italian ports of Genoa, Palermo, and Messina be instructed to detain steerage passengers from all parts of Russia and disinfect their baggage prior to embarkation for the United States.

Medical officers of the Service are regularly assigned to duty in the American consulates at Naples, Palermo, Genoa, Messina, and Catania, Italy, Marseilles, France, and Libau, Russia. In addition officers were detailed to inspect ports of embarkation in Italy, France, England, Holland, Belgium, Austria-Hungary, and Russia, in order to include them in a huge and effective cordon sanitaire. This outgoing quarantine work performed at the various foreign ports is provided for by the "special regulations on account of cholera, foreign and insular, paragraphs 24, 25, 26, 29, 30, 31, and 32.

Special attention is paid to the inspection of intending emigrants to determine the presence in their baggage or upon their persons of foodstuffs, bottled water, etc., which might have been exposed to the infection, and to the destruction of such articles when found. This inspection is made before and after the period of detention.

While the methods of procedure may differ to a certain degree at the various foreign ports, a description of the routine at such ports as Libau and Naples may be taken as a fair example of the work under consideration.

Emigrants are received until the evening of the sixth day preceding the sailing of the vessel. They are there held for five full days prior to their departure and subjected to a daily medical inspection. A personal inspection of the vessel is made on the day of sailing. Each family or single person is given a dated green card, termed a "quarantine" card, which states the name and age of each individual, and the fact that said person is at the time free from quarantinable disease. The card is stamped by the representative of the Service at the time of the first examination. Then upon the day of sailing,

five days later, the "quarantine" cards are again produced, attached to the ship's ticket as a control, and after the examination of the passenger the card is stamped with a date stamp marked "Second inspection." All emigrants not having a quarantine card, those with the card not stamped and dated, or those ill or suspected of being ill, are recommended for detention in the city until the sailing of the next vessel, two weeks later.

MEASURES ENFORCED DURING THE VOYAGE.

Not only were the majority of the steamship lines furnished with copies of paragraphs 46 to 52, inclusive, of the United States Quarantine Regulations, but, in accordance with the general instructions therein contained, a general order was issued to practically all of the trans-Atlantic lines running into the ports of New York, Boston, Philadelphia, Baltimore, Montreal, Halifax, and Norfolk to instruct the ships' surgeons to carefully inspect all passengers and crews, and to particularly note their condition during the 24 hours prior to their arrival at the ports above mentioned.

MEASURES TAKEN AT THE QUARANTINE STATIONS IN THE UNITED STATES.

Upon the arrival of vessels from cholera-infected ports or from ports from which persons from infected districts embark, the vessel, together with the personnel and passengers, are subjected to a careful inspection. This includes a personal inspection of the individual, an examination of any person ill, and a bacteriological examination of the stools of any reported to have suffered from any gastro-intestinal disturbance en voyage, or whose appearance would so indicate, or who may have been in close contact with a person or persons whose illness is considered suspicious.

The vessel is held in quarantine pending any examination thought warranted by the circumstances. At this inspection the work performed at foreign ports is checked up and failures to comply with the prescribed restrictions are discouraged by appropriate measures. In cases of emergency an expert from the Hygienic Laboratory is detailed to conduct the investigation at the port or place where the suspected case is being held.

SPECIAL INSPECTIONS FOR THE DETECTION OF MILD OR PREVIOUSLY UNRECOGNIZED CASES OF CHOLERA MADE BY SERVICE OFFICERS.

The medical officers of the Service engaged in the inspection of arriving aliens have rendered invaluable aid by carefully endeavoring to detect cases of cholera which on account of obscure symptoms might have passed the regular quarantine inspection. The result has been that the medical inspection of arriving aliens may be rightly classed as an important line of quarantine defense.

When a death from cholera occurred July 20, 1911, at the Boston quarantine station and three days later a death occurred at the New York quarantine station from the same disease, specially qualified officers of the Service were stationed at those ports to reinforce the quarantine inspection by special physical and bacteriological examinations. These prompt measures have thus far resulted in the apprehension of the imported cases before their departure inland.

THE IMMIGRANT DESTINATION CERTIFICATION.

It was thought that the measures above described were ample in scope and effectiveness to meet the cholera conditions, and the quarantine problem caused thereby, save in one particular, and that was in the case of "cholera carriers." The fear of the "cholera carrier" from a quarantine standpoint arises from the uncertainty as to the duration of the infectivity of the individual. While the majority of observers assert that "carriers" lose their vibrios in 10 days, certain authorities claim that the vibrios are carried for much longer periods, even as long as 69 days. The average time elapsing between the beginning of the period of detention of emigrants at a foreign port and the landing at the United States port is about 17 days. This is 7 days in excess over the commonly accepted period during which vibrios are carried and is a source of much safety and confidence. But the "cholera carriers" of long duration, however infrequently they may be encountered, presented a problem which

could only be met by the establishment of a system by which the services of the local health officers throughout the United States could be utilized in keeping under surveillance those localities wherein newly arrived immigrants are domiciled. An arrangement was therefore effected at all the large immigration stations by which the destination of each immigrant from a cholera-infected country is recorded on a separate card. The cards are then segregated according to the States to which the immigrant is destined and mailed daily to the secretaries of the various State boards of health for further distribution to the local health officers in each State. The facsimile of the face and back of the card below will show the form in which the information is sent.

(*Face*)

IMMIGRANT DESTINATION CARD

Port of.....

MONTH

Jan.	Feb.	Mar.	Apr.	May	June
July	Aug.	Sep.	Oct.	Nov.	Dec.

DAY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	....

Name of Immigrant.....

From what Country?.....ITALY.....RUSSIA .....

(Check indicates the country)

DESTINATION

	Ala.	Cal.	Del.	Ga.	Ind.	Ky.	Md.	Minn.	Neb.	N.J.	N.C.	Okla.	R.I.	Tenn.	Vt.	W.Va.
STATE:	Ariz.	Colo.	D. C.	Idaho	Iowa	La.	Mass.	Mo.	Nev.	N.M.	N.Dak	Oreg.	S.C.	Tex.	Va.	Wis.
	Ark.	Conn.	Fla.	Ill.	Kans.	Me.	Mich.	Mont.	N.H.	N.Y.	Ohio	Pa.	S. Dak	Utah	Wash.	Wy.

Town or City..... Street and Number.....

Initials of Inspector.....

(Back.)

TREASURY DEPARTMENT, WASHINGTON, D. C.

On information received from the Commissioner of Immigration, this card is sent to the State boards of health that they may be informed of immigrants coming into the States from countries in which at the present time cholera is prevalent, whether generally prevalent or only in certain districts. The person named on the reverse has been subject to the quarantine regulations at foreign ports, the quarantine inspection at the domestic port, and also the subsequent immigration examination. Notwithstanding these precautions, it is advisable to exercise surveillance over arrived immigrants from the cholera-infected countries as named on the reverse, and to this end it is suggested that this card be sent to the local health officer at the point of destination, so that he may examine into any case of sudden or fatal gastro-enteritis or diarrhea among immigrants to determine its actual nature, and if any doubt exists, to report to the State Board of Health or to the Public Health and Marine-Hospital Service at Washington. This card should not be confounded with the information required by paragraph 67, U. S. Quarantine Regulations

promulgated October 20, 1910, relating to immigrants who have arrived on a vessel on which infection has appeared and whose destination after quarantine detention and disinfection would be sent by telegraph or mail.

SURGEON-GENERAL,
U. S. Public Health and Marine-Hospital Service.

CHOLERA SITUATION DURING THE SUMMER OF 1911.

With onset of summer, cholera began to be reported in various places in Europe and it was feared that cases would be exported to the United States in spite of all precautions at foreign ports of embarkation. These fears were realized when on June 13, 1911, the quarantine officer of the port of New York reported that a steerage passenger from southern Italy who had embarked June 2d at Naples had died June 6th of cholera while en voyage. Fortunately some of his discharges had been saved by the ship's surgeon. When these were examined at the Hygienic Laboratory in Washington the clinical diagnosis of cholera was confirmed. On June 14th a second case was reported, while on June 20th four cases were discovered at the port of New York on an Italian steamship arriving from Genoa, Naples and Madeira. On the same date a "cholera carrier" was discovered at the same port on board a vessel from Patras, Greece, and Palermo, Italy. The "carrier" had embarked at Patras.

As a result of the foregoing, all quarantine officers on the Atlantic and Gulf coasts, and all officers engaged in the examination of alien immigrants both at home and in Europe were warned that careful inspection was necessary to detect atypical cases or bacillus carriers and concealed food.

On June 30, 1911, the immigrant destination notification system proved its value in a signal manner. An Italian boy who arrived on the Italian steamship on which four cases were found June 20th (*vide supra*), after being detained for seven days at quarantine, went to Auburn, N. Y., where he sickened June 30th and died the following day. A second case of cholera from the same steamship occurred in an Italian woman who was taken ill in Brooklyn, June 30th, and died July 4, 1911, at quarantine, where she had been sent. It is probable that these two cases were "carriers," and to diminish the danger from such cases the following additions to the United States Quarantine Regulations were promulgated:

"All steerage passengers arriving at ports in the United States from ports or places infected with cholera shall be subjected to bacteriological examination and shall not be admitted to entry until it has been determined by said examination that they are not cholera bacillus carriers."

The above was in addition to the regulations contained in a circular issued July 6, 1911, which provided:

"Cholera Bacillus Carriers.

"To diminish the danger from cholera bacillus carriers, steerage passengers coming from ports or places where cholera prevails and arriving on vessels upon which cholera has appeared, shall be detained ten days for observation unless after five days' detention they are found not to be bacillus carriers.

"The same provision shall also apply to other persons arriving on said vessels who for special reasons are deemed liable to be thus infected."

On July 29, 1911, the Canadian Government issued orders that "all steerage passengers arriving at ports in Canada from ports or places infected with cholera shall be subjected to bacteriological examination at the quarantine station of the port and shall not be permitted to pass such station or to make customs entry until it has been determined by such examination that they are cholera-bacillus carriers." This measure acted as a protection to the United States inasmuch as not infrequently persons from infected ports take passage for the United States via Canada.

The protective value of the above-mentioned measures instituted by the United States and Canadian Government was at once apparent. A cholera

carrier was apprehended at the Gross Isle Quarantine and from the time that the examinations were begun at the port of New York, September 5th, twenty-six carriers were found among detained passengers and crews. No case of cholera has occurred in the United States since July 23d, and no case of cholera has arrived at a port of the United States since August 18, 1911.

CRITERION OF IMMUNITY IN YELLOW FEVER.

By G. M. Guiteras, A.M., M.D.,
Surgeon, U. S. Public Health and Marine Hospital Service.

The problem of immunity in relation to infective and contagious diseases has a most important bearing on all branches of practical medicine, but in none more so than in preventive medicine, which branch is the special and, in fact, the only theme for discussion before this conference. And we may well feel that in advancing the principles of preventive medicine we are doing an altruistic and humanitarian service of which the medical profession may well be proud.

Immunity is that condition of the body cells which make them resistent to the invasion of a parasitic germ or to the toxin produced by it.

The fascinating study of how immunity is produced has made great strides of late, due to the labors of such noted scientists as Metchnikoff, Ehrlich, and others, but it is not our present purpose to deal with that phase of the subject, but to confine ourselves to its practical side from the viewpoint of the sanitarian, and with special reference to yellow fever.

Immunity may be natural, that is, inborn in the individual, or it may be acquired. When acquired, it may be the result of natural causes, such as a previous attack of the disease in question, or it may be brought about by artificial means, such as the injection into the body of an antitoxin, as in the immunity conferred by the use of diphtheria antitoxin or antityphoid serum. In either case, a change occurs in the cells of the body, making them resistent to the invasion of the same pathogenic organism or its toxins.

The immunity conferred in the latter case as in the former is not absolute. In diphtheria it lasts but a short time; in the exanthemeta, in typhoid yellow fever, etc., the immunity conferred by a previous attack of the disease may persist for a lifetime.

But even in the diseases just mentioned there are exceptions, that is, cases do occur in which a previous attack of the disease fails to confer immunity on the subject attacked, although it is well known that these exceptions are rare. Many cases are cited, it is true, where a second or even a third attack of yellow fever has occurred in the same individual, but human judgment is so very prone to err that it is more than probable that in many of these cases a mistake was made in the diagnosis either in the first febrile attack or in a subsequent one. I think, that admitting the possibility of a second attack, in so far as yellow fever is concerned, it may be considered sufficiently rare as to be a negligible quantity for practicable purposes such as quarantine restrictions, and we are therefore within a reasonable limit of safety in admitting that a previous well-authenticated attack of yellow fever may be accepted as conferring immunity for quarantine purposes.

The next step, and a most important one, is to determine what we are to accept as evidence of a "well-authenticated attack of yellow fever." This is a difficult and delicate subject, because it necessitates a determination of the professional ability and the probity of a brother physician. Unfortunately, we have to admit that some of our confrères (a very small proportion, to be sure) are at times willing to take a long chance in signing immune certificates, and for friendship's sake or for pecuniary gain, to certify to that which is not true. I would, therefore, insist that in order to accept a person as immune as the result of a previous attack it should be necessary to present a certificate from the attending physician stating that the person interested has had an attack of yellow fever and was treated by him for that disease. Further, such certificates should be accepted only from men of the highest integrity and of recognized familiarity with the disease in question.

I am of the opinion that only under the above conditions should a certificate of immunity be accepted for quarantine purposes.

It has heretofore been the general custom and, in fact, is incorporated in our quarantine regulations, that a ten years' residence in an endemic focus of yellow fever is sufficient to confer immunity, and that a certificate to that effect might be accepted by the sanitary authorities on sufficient evidence of such term of residence.

It always has seemed to me that this is an error, that is, that it was opening the door too widely and was a dangerous practice. For there are localities even in endemic foci where one might live for years with but slight chance of becoming infected, as for instance, where one is surrounded by immune individuals.

This objection, however, is very much enhanced, since the determination of the method of transmission of yellow fever, for it is quite clear that, at the present time, an intelligent, well-informed and careful individual could live for any number of years in an endemic focus of yellow fever and, while susceptible to the disease, never contract it. It would be only necessary to protect oneself against the bite of the mosquito, and this under ordinary circumstances would not be difficult of accomplishment. Just as in the case of cholera Asiatica one may reside in an infected locality and escape all danger of infection from that dread disease by merely boiling or heating to the required temperature everything taken into the alimentary canal, so also, one may remain in a place infected with yellow fever and taking easily applied precautions against the bite of the mosquito escape all danger of contracting the disease.

I would therefore recommend that our present regulations be so amended as to eliminate that proviso which accepts ten years' residence in an endemic focus of yellow fever as evidence of immunity against that disease.

It is to be hoped that in the near future we may be fortunate enough to discover the causative agent of yellow fever, and that as a result thereof we may be able to prepare a serum that will confer either a temporary or relatively absolute immunity against the disease, such as we now have in typhoid or in variola. Under such circumstances travel from infected points would be greatly facilitated, and the danger of infecting healthy localities reduced to a minimum.

PROTECTIVE MEASURES AGAINST CERTAIN COMMUNICABLE DISEASES.

The diseases represented in this report are mostly those the gravity of which is being more and more fully appreciated. The list is by no means complete, but it is supposed that in future conferences time will be reserved for the discussion of such diseases also as typhoid fever, pellagra, uncinariasis, amœbic infections, ophthalmia meonatorum, infantile paralysis, etc., the importance of which all sanitarians of all nations must realize, and in regard to which considerable is now being done in the United States.

Tuberculosis.—The campaign against this disease which received such great impulse following the meeting of the Eighth International Congress on Tuberculosis in the United States in 1908 has continued with unabated force.

The legislation enacted in the last two years has been reviewed in Report No. 1. The Federal Government, which already maintained sanatoriums at Fort Stanton for seamen of the merchant marine, at Fort Bayard for soldiers, and at Las Animas for sailors of the navy, has added five more institutions of the same character intended exclusively for the use of persons of the Indian race.

The combined efforts of the various agencies engaged all over the country in fighting tuberculosis have been effective in bringing the death rate down from 173.9 per 100,000 of population in 1908 to 167.5 in 1909, and 160.3 in 1910. There is good reason to believe that these encouraging results will persist. The National Association for the Study and Prevention of Tuberculosis, which is an unofficial organization, has its headquarters in New York, and continues a factor of the first importance in promoting both public and private enterprise aiming at the ultimate control of the disease.

The rapid extent and increasing force of the movement may be judged from the fact that, as shown in the last Tuberculosis Directory published by the above-mentioned association, there were in 1911, 342 dispensaries and clinics for the treatment of tuberculosis in the United States, an increase of 324

over those existing in 1905 (18); the number of sanatoria showed a similar augmentation from 111 in 1905 to 422 in 1911. The number of associations for the prevention of tuberculosis rose from 18 in 1905 to 511 in 1911. With the exception of Alaska, Idaho, Mississippi, Nevada, South Dakota, Utah, Vermont, and Wyoming, such associations now exist in varying numbers in every State, territory, and dependency of the United States.

The realization by the public of the dangers of this disease has proved of sufficient strength to secure not only the enactment of laws for the registration of cases, creation of sanatoria, disinfection, etc., having as an object the direct control of the disease, but also of others relative to sanitation and ventilation of factories, regulation of housing conditions, abolishment of the public drinking cup, suppression of promiscuous expectoration, medical inspection of schools, etc., which must necessarily be influential in bringing about a general improvement of sanitary conditions, and a diminution of morbidity and mortality rates.

Venereal Diseases.—The national immigration law excludes from admission into the United States persons afflicted with a loathsome or dangerous contagious disease. The regulations prepared by the Public Health and Marine Hospital Service includes syphilis, gonorrhea, and soft chancre in the category of loathsome contagious diseases, and therefore patients suffering from any venereal disease can not obtain admission to the United States.

Syphilis and gonorrhea are by law declared reportable diseases in only two of the States that form the Union, namely, California and Utah. Both of these laws were enacted during the present year.

The employment in food-handling establishments of persons with venereal diseases is forbidden in California, Illinois, Indiana (bakeries and confectioneries only), Kansas (by rules of the State Board of Health), Nebraska, New Hampshire, Pennsylvania (only in bakeshops), Rhode Island (only in bakeries, confectioneries, and ice-cream shops), Tennessee, Utah (only in meat-selling and handling establishments, and Washington (same as Pennsylvania.)

Various provisions have been made, forbidding the exercise of the barber's trade to persons with syphilis, requiring sterilization of tools and knowledge on the part of the barber of the most common manifestations of face and skin diseases, etc. To avoid the propagation of this disease in barber shops the above provisions are contained in laws of Colorado, Connecticut, Illinois, Kansas, Louisiana (in regulations of the State Board of Health), Michigan, Minnesota, Missouri, New Hampshire, North Dakota, Oregon, Rhode Island, Texas, Utah, Washington, Wisconsin, and District of Columbia (by regulation).

Hospital facilities for this kind of patients must be provided in Massachusetts, while prisoners with syphilis must be isolated in the same State, and retained in prison until cured, in both Massachusetts and Connecticut.

A law of the State of New York passed in 1910 requiring the detention of diseased prostitute prisoners until cured occasioned numerous protests on the part of women who complained of discrimination against their sex, and has recently been declared unconstitutional by the courts.

A law providing for the sterilization of syphilitic patients kept in public institutions was enacted this year in Iowa, and there is little doubt that the asexualization laws in force in California, Connecticut, and Indiana could be made to apply to such patients, although they are not specifically mentioned in the statutes.

Marriage of patients while the disease is communicable is forbidden by the laws of Indiana and Michigan.

Employment of persons suffering with syphilis, such as school janitors or teachers, is forbidden by the laws of Indiana, and admission to school of pupils with venereal diseases is prohibited in West Virginia, the fact to be ascertained by annual medical inspections.

The use of barbershops or public bathrooms by patients is prohibited by regulations of the State Board of Health in Kansas.

Dissemination by advertisement or otherwise of information regarding venereal diseases or remedies therefore is interdicted in Massachusetts, Minnesota, and Ohio.

With a view to preventing the spread of syphilis and other diseases, the

use of suction shuttles in factories is forbidden in Massachusetts, and the promiscuous use of public drinking cups abolished by law or regulation in sixteen of the States and a number of the most important cities; while the use of roller towels was stopped in Kansas and Connecticut.

Venereal diseases are specifically exempted by law from control as "communicable diseases" in Connecticut and Tennessee.

Power to issue regulations to prevent their spread is vested in the State Board of Health of Utah.

The foregoing is a résumé of the most important legislation relative to venereal diseases enacted in the United States. The control of these diseases is a subject that has attracted considerable attention in this country, especially during the last few years. In the discussion of this problem a great disparity of views prevails here as elsewhere, and many of the measures already adopted must be considered as purely tentative.

A number of bills approved by the medical profession requiring medical examination of aspirants to marriage have been introduced in several legislatures, but none have so far been adopted.

"Réglementation" in the European sense has been tried in at least two cities, but general opinion seems to be against it.

A number of societies have been formed in several States to combat through educational means the spread of venereal diseases, and several of them are doing effective work. The national organization, the American Society of Sanitary and Moral Prophylaxis, has especially, since its foundation, been active, conducting a wise campaign of education, by means of publications, public addresses, and otherwise.

Quite thorough studies of the social conditions that lead to the spread of venereal diseases has been made by several commissions in some of the largest cities of the country, namely, New York, Chicago, and Minneapolis, the result of the investigations conducted being embodied in voluminous publications.

At the last meeting of the American Public Health Association, held at Milwaukee in September, 1910, the matter received attention at the hands of some of the leading sanitarians of the country. The committee appointed the year before by the association rendered a report containing the following recommendations:

I. The recognition, study and control of the prevalence of gonorrhea and syphilis by the State boards of health, as with all other communicable preventable diseases, by securing reports from physicians of cases by number, at first by request and later by legal requirements, in order to ascertain the distribution of these diseases.

II. An educational campaign for parents of all social classes and children of all ages and sexes. This teaching should be not only moral but also medical in the widest sense. It will not do at present to rely on the moral argument.

(a) Proper distribution of circulars, pamphlets and other literature by State Health Departments through all suitable channels.

(b) State Health Departments to instruct all its local health officers in sexual matters and direct them to make a systematic effect to educate the people in their respective communities.

(c) State Health Departments to make a definite and determined effort to awaken and interest the medical profession in this fight against venereal diseases.

(d) State Health Departments to send out especially trained paid teachers and lecturers of their own, supported by exhibits and lantern slides, to address special meetings of parents, health officers, medical men, teachers and others in schools, colleges, churches, etc., on these and other preventable diseases.

(e) State Health Departments to encourage the organization of local leagues or associations, whose purpose shall be the support of and control of a crusade against the spread of all communicable diseases.

1. Said societies to include every profession and walk of life.

2. To depend preferably upon philanthropists for necessary funds, rather than upon paid subscriptions for financial support.

(f) State Health Departments to interest and provide for the authorities having charge of the educational curriculum in public and private schools.

1. By introduction of biology into the graded course of all schools.

2. By introduction into the text books on physiology of the upper grades instruction in reference to anatomy and physiology of the urinary and sexual organs.

3. By special instruction to normal school students who are to become the instructors. To impress upon the preceptors and teachers of these subjects, presidents and deans of all colleges, the necessity of repeated instruction in reference to the communicability of syphilis and gonorrhea, and to inculcate a morale of protection among the college fraternities.

4. To utilize the public press for the proper occasional presentation of the subject and to discourage the display of advertising matter which encourages the exposure to danger in these diseases.

5. To utilize churchmen's clubs, fraternal societies, trades unions, women's clubs, and especially mother's clubs for the immediate instruction of parents.

(g) State Health Departments to recommend the enactment of laws for:

1. Registration, physical inspection and segregation of prostitutes.

2. Notification and report (by number if desired) of venereal cases.

3. Physical examination of men before marriage.

4. Penalizing and holding to a strict (perhaps money damage) accountability those knowingly responsible for the transmission of venereal diseases.

5. Keeping open free night dispensaries and maintenance of special dispensaries and hospitals for these diseases.

III. Advocacy of temperance on account of the relationship between alcoholism, venereal diseases and insanity.

IV. Advocacy of personal cleanliness and venereal prophylaxis for those whose carnal appetites can not be controlled by the agencies of moral prophylaxis.

V. Advocacy of early marriages.

Smallpox.—The ravages of this disease having from time immemorial been so marked and severe, the knowledge of its seriousness being so general, it is only natural that the volume of legislation relative thereto should greatly exceed that enacted for the control of any other disease. Smallpox is in every part of the Union classed as a "dangerous communicable disease" subject to control by the health authorities. It is named as one of the six quarantinable diseases in the United States quarantine regulations, persons arriving at ports of the United States who have been exposed to the disease being required to be vaccinated or quarantined not less than 14 days since last exposure.

General vaccination is, under certain restrictions, made compulsory in only 10 States, 2 territories, and the District of Columbia; in two others it may be made such whenever deemed necessary by the State Board of Health. In seventeen more it may be enforced by local authorities. The vaccination of exposed persons is required by the State Board of Health in four other States, and recommended in two more. The attendance at school of unvaccinated persons is forbidden by law in fifteen States; and in Porto Rico the adoption of this measure is optional with local school authorities, and in 7 other States, and can only be enforced during periods of epidemic in 7 others. Compulsory vaccination is forbidden in the laws of 4 States, and in one it is declared unlawful to make vaccination a condition to admission to school. No reference is made to vaccination in the laws or health regulations of 5 States and Alaska.

The reports received by the Surgeon-General of the Public Health and Marine Hospital Service indicate that there has been marked decrease in the prevalence of the disease for the last ten years. There were 55,857 cases reported for the year 1902, 42,950 for the year 1903, 25,106 for the year 1904. Only 10,554 cases were reported for the year 1906, and 14,377 for the year 1907. During the fiscal years 1908, 31,200 cases; 1909, 24,657 cases; 1910, 25,084; 1911, 35,204 cases were reported respectively. The increase in the number of cases for the last four years furnishes perhaps evidence of a better and more thorough system of reporting cases rather than of an actual increase in the occurrence of smallpox.

The unusually mild character of the type of the disease prevailing in the United States is revealed in its extremely low mortality. The census reports show a steady diminution in the death rate per 100,000 inhabitants, which as 3.4 for the quinquennium 1901-1905; 0.5 for the year 1905; 0.2 for the years 1906, 1907, 1908, and 1909; and 0.4 for the year 1910. The actual number of

deaths was a yearly average of 1,119 from 1901-1905; 308 for 1905; 95 for 1906; 74 in 1907; 92 in 1908; 79 in 1909; 202 in 1910. The comparative high mortality for the year 1910 must be attributed to several sporadic outbreaks of local importance only, which, however, succeeded in bringing up the death rate for the entire country.

The reports compiled by the Bureau of Public Health for the calendar year 1910 shows 30,352 cases of smallpox. The benignity of the disease can be appreciated from the fact that there were only 415 deaths, that is, a death rate of 1.63 per cent, while the mortality abroad is usually from 20 to 40 per cent. The State of Utah had the highest case rate, with 966 cases, that is, 257.32 for each 100,000 inhabitants. The next highest rates occurred in the order indicated in North Carolina, Florida, Montana, Oklahoma, and Colorado. The lowest case rates per 100,000 occurred in Connecticut (no cases); Maryland (0.46); New Jersey (0.86); Maine (1.07); Pennsylvania (2.18), and New Hampshire (2.32). It is a noteworthy fact that the State of Utah, which had also the highest case rate in 1909, namely, 507 cases for each 100,000, has a provision in its statutes forbidding compulsory vaccination or to make vaccination a condition to admission to school. In none of the other five States in which smallpox was highly prevalent is compulsory vaccination thoroughly enforced while a systematic system of vaccination is practiced in the six States with the lowest case rate.

A striking departure in the treatment of cases of smallpox was recently made in Minnesota. Consistent with the scientific theory that considers vaccination the best protection against smallpox, the State Board of Health in its rules does not require quarantine in cases of smallpox. A sign is, however, placed on the house to serve as a warning to the public, and the patient himself is not suffered to leave the house. This policy has also been adopted this year by the State Board of Health of North Carolina with the avowed intention of causing the people to adopt vaccination as the only defense against smallpox.

Malaria.—A plan of campaign against malaria must of necessity depend on the thorough enforcement of three measures:

1. Compilation of statistics showing the prevalence and distribution of the disease.
2. Extermination of the agent that transmits the infection, the anopheles mosquito.
3. Destruction of the malaria germ after it has gained admission to the human organism.

1. There are only three States, California, Pennsylvania, and Vermont, which require reports of cases; in four others, Arizona, North Dakota, Oklahoma, and South Dakota, the State health authorities are empowered or required to take measures to prevent the spread of malarial diseases. There are therefore no accurate data showing the prevalence of malaria in the United States. The death rate per 100,000 inhabitants reported for the registration area was 3.9 in 1905, 3.5 in 1906, 2.8 in 1907, 2.5 in 1908, 2.4 in 1909, and 2.2 in 1910, but as this disease seldom results directly in death and is often reported under various names, the above information can hardly be taken as a true index of the occurrence of the disease.

2. The problem of mosquito extermination has usually been considered in the United States as one for solution by the individual community suffering from this plague. Local action has been taken in several cities, such as New Orleans, for the destruction of mosquitoes; a section of Sanitary Code of the City of New York requires the screening of water tanks to prevent the access of mosquitoes; in most localities the health authorities assume that "each person is responsible for his own mosquitoes," and their interference is limited to the circulation of educational literature, the results depending mainly on the public spirit of the citizens. Of all the States, New Jersey has in force the most thorough system of mosquito eradication, the laws providing for surveys of swamp areas for the purpose of determining the places most prolific of mosquitoes and the times when they are most likely to appear, and also for State appropriations to aid those localities which are willing to contribute to the anti-mosquito work. Enforcement of a number of measures to prevent the breeding of mosquitoes in cisterns, tanks, barrels, buckets,

ponds, etc., is required in the health regulations of Louisiana and Hawaii; while screening of cisterns is required in the laws of Mississippi and Texas.

3. Contrary to the practice of several foreign countries, such as Italy, Greece, Bulgaria, Algeria, etc., free distribution of quinine at public expense is not practiced anywhere in the United States.

Trachoma.—A report on trachoma was presented by Surgeon-General Wyman to the Third International Sanitary Conference in Mexico in 1907 (see page 217 of the Transactions). No new developments relative to this disease have occurred in the United States, although a part of the medical press has recently challenged the proof of the contagiousness of the disease. That it is contagious there is no doubt. Abundant evidence to that effect can be adduced, and the experience of the Public Health Service in its examination of over 1,400,000 persons since 1891 confirms this view. Furthermore, there is no question regarding the wisdom of excluding trachomatous aliens from a country.

Leprosy.—A report on leprosy was presented by the United States delegation to the Fourth International Sanitary Conference at San Jose, Costa Rica, in 1907 (see page 194 of the Transactions). No further report appears necessary at this time.

MORBIDITY AND MORTALITY IN THE UNITED STATES.

One of the main purposes of this conference is the prevention of the spread of disease from one country to another. This is accomplished in part by the mutual institution of general sanitary measures. However, the first requisite in the prevention of the spread of any disease, be it from one district or province to another district or province, or from one country to another, is a knowledge of its prevalence and geographic distribution in the districts, provinces or countries. This knowledge can be acquired and made available to those concerned only by the reporting of cases of sickness. The publication of the exact status of disease in the several countries would assist in the maintenance of a minimum maritime quarantine and, by making the prevalence of diseases in the several countries comparable, would be a powerful incentive to sanitary progress. It would give the sanitary authorities exact information by which they could deal with actual specific conditions, instead of generalities, and would render their work more effective for the same expenditure of time and effort.

Morbidity.—Increased attention and consideration are being given by the health authorities of the United Sttaes, national, State, and local, to the reporting of cases of sickness. Its importance, as a basis of public health work, is receiving merited recognition, as is evidenced by the many laws being enacted by the State and city authorities.

Each State has jurisdiction in regard to the diseases which shall be reported within its territory, and determines which shall be notifiable. The notifiable diseases, therefore, vary to some extent in the several States. A list of those diseases and the number of States requiring a report of cases follows:

Diseases.	*Number of States requiring notification.*
Actinomycosis	2
Anthrax	7
Beriberi	3
Cancer	1
Cerebro-spinal meningitis	22
Chagres fever	1
Chicken pox	13
Cholera (Asiatic)	35
Dengue	4
Diphtheria	37
Dysentery	1
Epidemic dysentery	2
Erysipelas	3
Favus	1
German measles	3
Glanders	8
Gonococcuc infection	1
Leprosy	20
Malarial fever	2
Measles	22
Mumps	3
Opthalmia neonatorum	16
Pellagra	4
Plague	20
Pneumonia	6
Poliomyelitis	16
Puerperal fever	2
Rabies	5
Relapsing fever	1
Rocky Mountain (spotted) fever	1
Scarlet fever	37
Smallpox	42
Syphilis	1
Tetanus	4
Trachoma	6
Trichiniasis	3
Tuberculosis:	
All forms	18
Communicable	1
Abdominal	1
Laryngeal	4
Pulmonary	9
Typhoid fever	23
Typhus fever	23
Uncinariasis	4
Whooping cough	17
Yellow fever	27

With the present active interest in public health matters, it is believed that practically all the preventable diseases will be required before many years to be reported in every State. This will not only afford information for the immediate action of the local health authorities concerned, but will give a knowledge of the geographic distribution and prevalence of the diseases throughout the country, which will be of the greatest value in the study of the epidemiology and the factors operating in the spread of these diseases.

Cholera.—From June 14 to August 18, 1911, six cases of cholera arrived at the New York quarantine on vessels from cholera infected localities, and twelve cases developed among passengers and members of the crews of these vessels while under detention at quarantine. From June 30th to July 19th, cases of the disease developed among recently arrived immigrants, or among those who had come into intimate contact with them, at the following places:

Auburn, New York	1 case;
New York City	2 cases;
Staten Island, New York	1 case;
Boston, Massachusetts	1 case.

The patient in each instance was isolated, all but the first named being removed to the quarantine station, and no extension of the disease occurred. The last case was taken sick July 19th, in New York City, since which date no case has occurred in the United States, outside of those among the immigrants detained at quarantine.

Cholera bacillus carriers are as important to the sanitarian as are cases of cholera, and can properly be classed with them. Measures enforced by the Treasury Department for the detention of these carriers among immigrants from cholera infected localities resulted in the finding of 26 carriers among immigrants and members of crews arriving at ports of the United States on vessels from cholera infected places. These were as carefully isolated as the cases of the disease.

Smallpox.—Smallpox in a type so mild that it is at times recognized with difficulty has been prevalent throughout the greater part of the country. During the calendar year 1909 there were reported 24,099 cases with only 150 deaths. During the year 1910 there were reported 30,352 cases with 415 deaths, and from January 1, to June 30, 1911, 17,290 cases with 56 deaths. The prevalence of the disease is undoubtedly to a large extent accountable by its extreme mildness, many of the cases not being sufficiently ill to require the services of a physician, or even to cause the patient to take to bed. Because of this many cases were undoubtedly not recognized and other individuals were in consequence exposed to an extent that would not have occurred with a more serious illness.

During the year 1909, and more especially during 1910, there were a few isolated outbreaks of smallpox of a virulent type, and in these the mortality rate varied from 16 to 54 per one hundred cases. The distribution of the disease as reported in the several States is shown by the following tables:

SMALLPOX, 1909.

Showing, by States, Cases Reported, Case Rates, Deaths Reported, and Case Mortality Rates.

States.	Cases.	Case rate per 100,000 inhabitants.[1]	Deaths.	Case mortality rate per hundred.	Remarks.
1. Alabama	102	.....	3	.....	Incomplete; no available record of cases for entire State.
2. Alaska	(?)	.....	(?)	.....	Cases not reported.
3. Arizona	(?)	.....	1	.....	1 death reported; reports incomplete.
4. Arkansas	120	.....	(?)	.....	Incomplete; no available record of cases for entire State.
5. California	180	.....	6	.....	Do.
6. Colorado	345	44.33	.....	.....	
7. Connecticut	3	.27	.....	.....	
8. Delaware	(?)	.....	(?)	.....	No available record of cases for entire State.
9. Dist. of Columbia.	24	7.34	.....	.....	
10. Florida	3	.41	1	33.33	Cases probably incomplete.
11. Georgia	266	.....	(?)	.....	Incomplete; 181 of these cases were reported in Macon.
12. Idaho	(?)	.....	(?)	.....	No available record of cases.
13. Illinois	2,135	38.31	8	.37	
14. Indiana	1,363	50.74	5	.37	
15. Iowa	825	37.12	4	.48	
16. Kansas	2,197	131.67	4	.18	
17. Kentucky	390	.....	(?)	.....	Incomplete; no available record of cases for entire State.
18. Louisiana	1,409	.....	3	.....	Do.
19. Maine	36	4.87	.....	.....	
20. Maryland	26	2.02	.....	.....	
21. Massachusetts	14	.42	1	7.143	
22. Michigan	1,175	42.38	4	.34	
23. Minnesota	1,430	69.41	14	.98	
24. Mississippi	76	.....	(?)	.....	Do.
25. Missouri	221	.....	(?)	.....	Do.
26. Montana	685	187.46	3	.44	
27. Nebraska	109	.....	(?)	.....	Do.
28. Nevada	(?)	.....	(?)	.....	No available record of cases.
29. New Hampshire	2	.46	.....	.....	
30. New Jersey	88	3.56	2	2.27	
31. New Mexico	(?)	.....	(?)	.....	Do.
32. New York	762	8.52	4	.52	
33. North Carolina	1,733	79.45	2	.12	
34. North Dakota	204	36.72	.....	.....	
35. Ohio	1,328	28.14	4	.30	
36. Oklahoma	1,434	90.41	6	.42	
37. Oregon	252	38.65	.....	.....	
38. Pennsylvania	25	.33	.....	.....	
39. Rhode Island	(?)	.....	.....	.....	
40. South Carolina	19	.....	9	.....	Incomplete; no available record of cases for entire State.
41. South Dakota	13	.....	2	.....	Do.
42. Tennessee	680	.....	2	.29	Do.
43. Texas	752	.....	14	.....	Incomplete.
44. Utah	1,854	507.11	5	.27	
45. Vermont	73	20.56	.....	.....	
46. Virginia	202	.....	18	.....	Incomplete; no available record of cases for entire State.
47. Washington	310	28.39	9	2.90	
48. West Virginia	26	.....	.....	.....	Do.
49. Wisconsin	1,208	52.14	16	1.32	
50. Wyoming	(?)	.....	(?)	.....	No reports received.
Total	24,099	.....	150	.....	

[1]Based upon the estimated population July 1, 1910, as given by the Director of the Census.

Poliomyelitis.—Poliomyelitis has been prevalent throughout the United States for several years to a degree unusual for this disease. The authorities, however, have been taking active measures to ascertain the cause of its prevalence and the reasons for its spread. The prevalence and geographic distribution of this disease as reported by States for the calendar years 1909 and 1910 are shown by the following tables:

SMALLPOX, 1910.

TABLE No. 1.—*Showing, by States, Cases Reported, Case Rates, Deaths Reported, and Case Mortality Rates.*

	Cases.	Case rate per 100,000 inhabitants.[1]	Deaths.	Case mortality rate per 100.	Remarks.
Alabama	616	.....	(?)	.....	No available record of cases for entire State. These cases were reported in Birmingham, Mobile, and Montgomery.
Alaska	(?)	.....	(?)	.....	Cases not reported.
Arizona	(?)	.....	(?)	.....	No available record of cases.
Arkansas	106	.....	(?)	.....	No available record of cases for State. These cases were reported in Argenta, Little Rock, Lonoke, and Fort Smith.
California	177	.....	1	.....	Incomplete.
Colorado	1,096	136.23	7	0.64	
Connecticut	None.	.....	None.	.....	
Delaware	(?)	.....	(?)	.....	No available record of cases.
District of Columbia	96	28.89	.....	.....	
Florida	1,286	169.50	12	.93	
Georgia	389	.....	(?)	.....	No available record of cases for State. These cases were reported in the city of Macon.
Idaho	(?)	.....	(?)	.....	No available record of cases.
Illinois	730	12.91	(?)	.....	
Indiana	764	28.24	1	.13	
Iowa	850	38.19	1	.12	
Kansas	2,202	129.77	12	.54	
Kentucky	(?)	.....	.....	.....	No available record of cases.
Louisiana	860	.....	5	.....	Reports are incomplete.
Maine	8	1.07	.....	.....	
Maryland	6	.46	.....	.....	
Massachusetts	144	4.26	.....	.....	
Michigan	2,585	91.66	121	4.68	
Minnesota	1,002	48.18	9	.90	
Mississippi	227	.....	5	.....	No available record of cases for State. These cases were reported from 7 cities.
Missouri	287	.....	2	.....	Do.
Montana	634	167.32	1	.16	
Nebraska	51	.....	(?)	.....	No available record of cases for State. These cases were reported from Lincoln and South Omaha.
Nevada	(?)	.....	(?)	.....	No available record of cases.
New Hampshire	10	2.32	.....	.....	
New Jersey	22	.86	.....	.....	
New Mexico	(?)	.....	(?)	.....	No available record of cases.
New York	353	3.85	8	2.26	
North Carolina	4,281	193.45	8	.18	
North Dakota	306	52.51	2	.65	
Ohio	759	15.88	10	1.32	
Oklahoma	2,342	139.75	99	4.22	
Oregon	164	24.18	5	3.05	
Pennsylvania	168	2.18	6	3.57	
Rhode Island	.....	.....	.....	.....	No cases reported.
South Carolina	(?)	.....	(?)	.....	No available record of cases.
South Dakota	365	.....	1	.....	Report complete for April to December, inclusive.
Tennessee	2,199	.....	10	.....	Incomplete.
Texas	2,925	74.72	67	2.29	
Utah	966	257.32	2	.21	
Vermont	.....	.....	.....	.....	No cases reported.
Virginia	350	.....	6	.....	No available record of cases for State. These cases were reported from 8 cities.
Washington	583	50.46	14	2.40	
West Virginia	(?)	.....	(?)	.....	No available record of cases.
Wisconsin	443	18.94	(?)	.....	
Wyoming	(?)	.....	(?)	.....	No available record of cases.
Total	30,352	.....	415	.....	

[1]Based upon the estimated population July 1, 1909, as given by the Director of the Census.

TABLE No 2.—*Showing Cases Reported by Months.*[1]

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Colorado ..	82	132	179	114	117	68	62	14	39	73	112	104	1,096
Florida ...	50	61	213	118	180	162	81	28	17	11	107	258	1,286
Illinois	170	32	88	58	74	92	24	16	8	52	84	32	730
Indiana ...	189	92	104	92	98	82	....	6	1	2	53	45	764
Iowa	122	109	97	141	68	76	23	17	9	12	50	126	850
Kansas	441	280	256	148	304	247	43	20	9	66	211	177	2,202
Maine	....	6	....	....	1	....	....	....	....	....	1	....	8
Maryland .	1	....	....	1	3	....	1	....	....	....	....	....	6
Massachusetts	90	26	5	4	10	7	2	....	....	....	....	....	144
Michigan .	290	262	356	253	370	316	104	65	32	101	339	97	2,585
Montana ..	122	116	68	64	70	53	33	8	15	18	17	50	634
New Hampshire	4	3	....	....	....	....	....	....	....	....	....	3	10
New Jersey	....	2	1	....	3	2	2	3	4	3	....	2	22
New York.	51	50	69	61	55	41	10	10	1	1	2	2	353
North Carolina.	877	758	429	317	249	219	115	91	45	197	244	740	4,281
North Dakota..	46	32	107	14	22	20	6	38	2	3	9	7	306
Ohio	104	83	60	77	178	168	46	4	8	11	8	12	759
Oklahoma	238	388	390	475	214	267	69	51	65	46	48	91	2,342
Oregon ...	36	29	29	12	12	14	....	....	12	7	2	11	164
Pennsylvania..	14	41	40	8	22	7	23	4	6	....	1	2	168
Texas	706	785	581	228	199	246	42	17	8	32	28	53	2,925
Utah	181	91	112	79	64	27	21	11	42	35	91	212	966
Washington	120	82	60	78	54	36	15	4	7	5	41	81	583
Wisconsin	39	63	66	33	50	37	32	10	12	14	37	50	443
Total..	3973	3523	3310	2375	2417	2187	754	417	342	689	1485	2155	23,627

Pellagra.—Pellagra is a disease which was not known to exist in the United States, with the exception of an occasional isolated case, until the year 1907. If cases existed before this time, they were not recognized. Since 1907, however, cases have been found in considerable numbers in many localities. It continues to be prevalent to an unexpected extent, and an increasing number of cases are being recognized as practicing physicians become familiar with the symptoms of the disease. Its exact prevalence is not known, although it has been found in more than thirty States. The disease is undoubtedly one which is frequently not properly diagnosed. It is at present required by law to be reported in only four States.

Leprosy.—Occasional cases of leprosy are found in the United States. They are usually among the foreign born, although cases have been reported among the native born. From January 1 to September 1, 1911, nine cases have been reported from seven States and the District of Columbia.

Plague.—From July 1, 1909, to August 8, 1911, seven cases of plague have been reported in the State of California. These occurred as follows:

October 26th	1	case
August 2d	1	"
September 24, 1909	1	"
June 5th	1	"
September 5, 1910	1	"
July 25, 1911	1	"
August 8, 1911	1	"

Beriberi.—Occasional outbreaks of this disease have been reported as follows: In South Carolina, among negro convicts, at a camp ten miles from the city of Charleston, seventeen cases, with eight deaths.

In California during the years 1907, 1908 and 1909, twenty-five deaths from beriberi were reported. Of these, twenty-two were of Japanese, two of Chinese and one of German nativity.

[1]This table includes only the States for which the cases were reported by months.

A series of seventy-one cases was reported among the patients in the State Insane Asylum, Tuscaloosa, Alabama, during the years 1895 and 1896. Of these twenty-one were fatal.

In 1907 over two hundred cases developed in the State Lunatic Asylum, Austin, Texas. Of these, twenty were fatal.

MORTALITY.

The data available in regard to vital statistics refers mostly to the year 1909, the Bureau of the Census not having yet made public the bulletin containing the mortality statistics for the year 1910. Through the courtesy of the Chief Vital Statistician of the Census Bureau, some advance information relative to mortality rates of the most important diseases in the year 1910 is also incorporated in this report.

The population of the "registration area" of the United States, which was estimated to comprise in 1908 a total of about 45,000,000 inhabitants, was increased in both 1909 and 1910 by the addition of further sections of the country complying with the requisites of the Census Bureau. The percentage of population in the "registration area" thus rose from 51.8 in 1908 to 55.3 in 1909 and 58.3 in 1910. Laws recently adopted in various States make it very probable that this area will soon receive further substantial additions.

For the year 1909 the registration area of the United States included the following States: California, Colorado, Connecticut, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Washington, Wisconsin, and 54 cities in non-registration States. Minnesota, Missouri, and North Carolina (only cities over 1,000 inhabitants) were the States admitted to the registration area in 1910.

The total number of deaths returned from the year 1909 was 732,538, and for 1910, 805,412. The death rate for 1909 was 15 per 1,000 and 14.95 per 1,000 in 1910, a mortality which compares very favorably with that for the year 1908 (15.4).

Of the deaths registered for the year 1909, 54.4% were deaths of males, a rate practically identical with that for 1908 (54.3%). There was a slight decrease in the proportion of deaths of children under 5 years of age, 26.8% in 1909 to 27.5 in 1910, this being mostly due to a lower ratio of deaths of infants under 1 year in 1909 (19.1) than in 1908 (19.7). The quinquennial percentages up to and including 45 to 49 years are either the same for 1909 and 1908 or a trifle lower in 1909, thus making the proportion for the higher ages greater in 1909 than in 1908. 196,534 of the deaths occurred in children under 5 years of age, and 140,057 of these were of infants under 1 year.

The death rates of the larger American cities for the year 1909 vary for the most part between 14 and 17 per thousand, and are about 2 or 3 per 1,000 lower than they were ten years ago. The precise figures are, however, subject to revision, as they are based on estimated populations:

	1908	*1909*
New York	16.8	16.0
Chicago	14.0	14.6
Philadelphia	17.4	16.4
Boston	19.1	16.8
New Orleans	22.7	20.2
St. Louis	14.5	15.8
Pittsburgh	16.5	15.8
Baltimore	18.3	18.7
Washington, D. C.	19.3	19.0
Detroit	15.6	14.0
Milwaukee	13.6	13.6
Indianapolis	13.5	11.4
Jersey City	17.8	16.8
Buffalo	15.9	15.2
Cleveland	14.2	12.9
Cincinnati	18.5	16.4

The cities with the largest amounts of decrease in the actual number of deaths returned in 1909 as compared with the year 1908 were Philadelphia (987); Boston (696); Pittsburgh (687); New Orleans (575), and Cincinnati (512). The continued decrease in the number of deaths in Philadelphia is worthy of notice, the decrease for the year 1908 as compared with 1907 having been 1,550.

CAUSES OF DEATH.

	No. of deaths		*Death rate per 100,000*		
	1909	*1910*	*1908*	*1909*	*1910*
Typhoid fever	10,722	12,673	25.3	21.1	23.5
Malaria	1,175	1,176	2.5	2.4	2.2
Smallpox	79	202	0.2	0.2	0.4
Measles	4,860	6,598	10.2	10.0	12.3
Scarlet fever	5,781	6,255	12.4	11.0	11.6
Whooping cough	4,906	6,146	11.0	10.1	11.4
Diphtheria and croup	10,358	11,521	22.3	21.2	21.4
Tuberculosis, all forms	81,720	86,309	173.9	167.5	160.3
Cancer	37,562	41,039	74.3	77.0	76.2
Rheumatism	3,633	4,004	7.9	7.4	7.4
Diabetes	7,024	8,040	13.9	14.4	14.9
Meningitis	7,853	7,619	19.8	16.1	14.2
Heart disease	65,971	76,178	133.3	135.3	141.5
Bronchitis	12,127	12,620	26.9	24.9	23.4
Pneumonia	70,033	79,524	136.0	143.6	147.4
Diarrhea and enteritis (inf.)	44,648	54,266	98.9	91.5	100.8
Appendicitis	5,768	6,128	11.7	11.8	11.4
Bright's disease	48,430	53,330	97.3	99.3	99.0
Puerp. affections	7,791	7,455	16.3	16.0	15.7
Suicide	8,402	8,590	18.5	17.2	16.0
Accidents (including violent deaths)	47,135	48,606	97.9	99.7	90.3

The twenty leading causes of death for 1909 in the order of the number of deaths caused were:

Tuberculosis	81,720
Heart disease	65,971
Diarrhea and enteritis	52,516
Pneumonia	49,007
Bright's disease (and nephritis)	48,430
Accident	44,281
Cancer	37,562
Apoplexy	36,463
Broncho-pneumonia	21,026
Premature birth	18,286
Congenital debility	14,988
Old age	13,456
Bronchitis	12,127
Typhoid fever	10,722
Diphtheria	10,358
Diseases of arteries	10,174
Suicide	8,402
Various diseases of stomach	8,171
Meningitis	7,853
Childbirth	7,791

POLIOMYELITIS IN THE UNITED STATES.[1]

Cases and Deaths Reported During the Year 1910.

State.	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.		Remarks.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Alabama	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
Arizona	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Do.
Arkansas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Do.
California	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	2	9	3	11	4	....	....	53	9	December report not yet received.
Colorado	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	1	1	....	....	....	....	5	1	Reports not completed.
Connecticut	....	....	....	....	....	....	....	....	....	....	1	....	18	2	36	9	71	10	31	7	10	2	2	1	168	32	
Delaware	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	....	....	....	....	....	....	....	....	2	1	Do.
District of Columbia	....	....	....	....	....	....	....	....	....	....	....	....	7	....	93	11	20	2	18	1	1	1	....	....	140	15	
Florida	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	1	....	....	....	1	....	6	....	
Georgia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
Hawaii (Honolulu)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	42	1	From second week in September to Dec. 15, 1910, there were 42 cases, 1 death.
Idaho	....	....	....	....	....	....	1	1	1	....	5	1	44	4	....	....	....	....	....	....	....	....	....	....	96	6	96 cases reported during year.
Illinois	....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	5	23	2	33	18	52	10	14	7	137	42	
Indiana	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	77	11	56	14	....	4	133	29	
Iowa	3	3	1	1	4	2	7	2	25	2	20	2	54	7	156	44	198	39	116	32	43	18	11	9	638	161	
Kansas	....	....	....	....	....	....	....	....	....	....	....	....	57	15	....	....	....	....	....	....	....	....	....	....	189	47	Up to Nov. 20, 1910, 189 cases and 47 deaths.
Kentucky	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Present—no reports.
Louisiana	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
Maine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Present.
Maryland	....	....	....	....	....	....	....	....	....	....	....	....	1	4	9	10	11	3	7	6	5	3	....	....	55	28	2 deaths were reported during the first six months of the year—statistics incomplete.
Massachusetts	8	....	1	....	2	....	3	....	8	....	....	....	....	3	[2]118	....	[2]114	....	[2]75	....	54	....	21	....	588	..	June and July 1910, 184 cases reported; deaths not given.
Michigan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	2	10	4	10	2	9	1	7	5	43	14	
Minnesota	....	....	....	....	....	....	....	....	....	....	....	....	....	....	89	13	77	16	55	3	6	1	....	....	227	69	Reports for year not complete.
Mississippi	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	January to June 1910, 36 deaths.
Missouri	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
Montana	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Do.
Nebraska	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	Estimated cases 40.
Nevada	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
New Hampshire	....	....	....	....	....	....	....	....	....	....	....	....	5	2	....	....	....	....	....	....	....	....	....	....	5	2	9 cases with 1 death during the years 1909 and 1910.
New Jersey	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	75	....	75 cases during the year from 55 localities.
New Mexico	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
New York	....	....	....	....	....	....	....	....	1	....	1	....	10	....	28	12	97	16	43	21	33	9	4	2	517	60	
North Carolina	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
North Dakota	....	....	....	....	....	....	....	....	....	....	....	....	11	....	29	1	38	1	11	1	10	2	1	....	100	5	
Ohio	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	24	....	28	....	....	....	52	....	Reports not complete.
Oklahoma	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	4	January to August 1910. 5 cases 4 deaths.
Oregon	....	....	....	....	....	....	....	....	....	....	2	2	18	5	....	1	....	1	5	....	9	11	2	1	36	21	
Pennsylvania	....	....	....	....	....	....	....	....	....	....	....	....	153	....	275	58	378	64	197	50	95	22	15	....	1,097	172	Reports for year not complete.
Rhode Island	....	....	....	....	1	....	....	....	4	....	5	....	46	....	70	....	65	....	9	....	4	....	2	....	231	....	During the year a total of 231 cases were reported.
South Carolina	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	85	10	Cases reported between May 21 and Oct. 15.
South Dakota	....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	1	25	11	31	3	10	2	5	....	86	17	
Tennessee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No cases reported.
Texas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Do.
Utah	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	2	1	
Vermont	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	2	13 cases, 2 deaths, to Oct. 1; no cases during balance of year.
Virginia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	[3]30	....	[3]18	....	....	....	19	1	12	1	357	2	Jan. 1 to Oct. 12, 1910, 326 cases were reported.
Washington	1	....	....	....	....	....	....	....	7	....	24	1	40	1	103	15	....	....	51	17	20	9	8	6	254	49	
West Virginia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
Wisconsin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	22	27	Estimated there were 500 cases.
Wyoming	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	No reports.
Total	12	3	2	1	7	2	11	3	46	2	57	7	465	44	1,078	182	1,146	171	804	176	477	111	105	36	5,093	825	

[1] See Public Health Reports, Sept. 30, 1910, p. 1317, and Oct. 28, 1910, p. 1517

[2] Approximate.

[3] This is the minimum number.

DEATHS BY SEX AND AGE.

Sex.		*Percentage.*
Male	398,597	54.4
Female	333,941	45.6
Age.		
Under 5 years	196,534	26.8
5 to 9 years	16,141	2.2
10 to 14 years	10,761	1.5
15 to 19 years	18,138	2.5
20 to 24 years	27,303	3.7
25 to 29 years	29,733	4.1
30 to 34 years	29,905	4.1
35 to 39 years	32,965	4.5
40 to 44 years	32,115	4.4
45 to 49 years	34,646	4.7
50 to 54 years	36,428	5.0
55 to 59 years	37,007	5.1
60 to 64 years	42,475	5.8
65 to 69 years	46,649	6.4
70 to 74 years	45,610	6.2
75 to 79 years	41,989	5.7
80 to 84 years	29,680	4.1
85 to 89 years	16,533	2.3
90 and over, and unknown	7,925	1.0

OCCUPATIONS AND CAUSES OF DEATH.

An effort has been made to compile data relative to decedents in the registration area who were at least ten years old, and were reported to have been engaged in some gainful occupation at the time of their death. Of the deaths of males reported, 210,507, or 52.8%, were of persons engaged in some gainful occupation; while in the case of females, 27,459, or only 8.2%, were of persons gainfully employed.

In the absence of definite statistics (which are only available every ten years) showing the number of persons employed in the different industries, the data compiled by the Census Bureau regarding the relative mortality of various occupations can hardly be called satisfactory, as more or less guesswork must figure in all the comparisons made, and it is difficult to determine the wholesomeness of a given industry as shown by the death rate.

REGULATIONS RELATIVE TO INTERNATIONAL TRAFFIC WITH A VIEW TO PREVENTING THE SPREAD OF COMMUNICABLE DISEASES.

The United States Quarantine Regulations outline the measures which have been deemed advisable for the protection of the nation against the introduction of communicable diseases in international traffic. These regulations were thoroughly revised in October, 1910, and conform strictly to the principles laid down at the International Sanitary Conference held at Paris in 1903, and the Conventions signed by the American Republics. Their application in the daily practice was the subject of a paper by the United States delegation at the Fourth International Sanitary Conference held at San José, Costa Rica, in 1909 (see page 196 of the Transactions).

The one matter of supreme importance in the revision of the regulations was the adoption of a regulation relative to the destruction of rodents, which commits the government to the policy of systematic fumigation of ships every six months or oftener.* This matter has been brought to the attention of the International Office of Public Hygiene at Paris, and it is expected that it will be one of the subjects under consideration at the International Sanitary Conference which will meet at Paris in October, 1911.

*This regulation is discussed in another part of this report, and a copy of the regulation itself is also given there.

SANITARY RESTRICTIONS ON IMMIGRATION.

The immigration laws of the United States exclude from admission: idiots, imbeciles, feeble-minded persons, epileptics, insane persons, persons afflicted with tuberculosis or with a loathsome or dangerous contagious disease, and also persons afflicted with a mental or physical defect of such nature as to affect the ability of the alien to earn a living.

Officers of the Public Health and Marine Hospital Service conduct the medical examinations of aliens, and pass upon questions of a medical character arising in the enforcement of this act. The regulations prepared by this Service define a loathsome contagious disease, and refer especially to those essentially chronic in character, such as favus, ringworm, sycosis barbae, actinomycosis, blastomycosis, frambesia, mycetoma, leprosy, and venereal diseases. A dangerous contagious disease is taken to mean a communicable disease, essentially chronic in character, which may result in the destruction of one of the most important senses or loss of life, such as trachoma, filariasis, uncinariasis, amoebic infection, bilharziosis.

Cases which are considered to fall under the classification of "persons afflicted with a mental or physical defect of such nature as to affect the ability of the alien to earn a living" are such diseases as hernia, heart disease, defective nutrition, defective development, chronic arthritis and myositis, nervous affections, malignant new growths, deformities, senility, varicose veins, defective eyesight, cutaneous affections, eruptive fevers, anaemia, tuberculosis joint affections, and conditions such as pregnancy, and in general all diseases and defects that may impair a person's capacity for self-maintenance, all defective and diseased conditions of a more or less permanent character tending to require institutional care or treatment, all physical conditions which require or are likely to require medical treatment, and all cases of diseased, deformed, or crippled children.

Many of the immigrants are inspected at foreign ports, but the chief reliance is placed on the examination at the port of arrival. These examinations are now conducted at 79 stations, 77 medical officers having been assigned exclusively to this work during the fiscal year 1910. There were 1,280,957 immigrants examined, of which 30,780 were certified for exclusion by the immigration authorities.

REPORT PRESENTED BY DOCTOR E. FERNANDEZ ESPIRO AND DOCTOR JAIME H. OLIVER, DELEGATES FROM URUGUAY.

I. LAWS OF SANITARY POLICE AND HEALTH MEASURES ADOPTED SINCE THE FOURTH CONFERENCE.

The following laws have been enacted since the Fourth International Sanitary Conference, held in San José, Costa Rica, in 1909:

Law creating the Departmental Offices of Health Inspection, in lieu of the Departmental Boards established in 1895 under the National Board of Hygiene; there is one for each Department of the Republic, under competent physicians appointed by the Executive upon recommendation of the National Board.

Law of National Public Assistance. Under this law, all national and municipal establishments devoted to the care, protection and attendance of the poor have been placed under the control of the Bureau of National Public Assistance and the Board of Public Assistance, which latter is composed of 21 members. The former is under a Director-General.

Law of Pharmacies, which prescribes the conditions and requirements which must be fulfilled for the operation of these establishments. No drug store can now be operated unless it be under a graduate pharmacist.

Law of Vaccination and re-Vaccination, which compels every inhabitant of the Republic to be duly vaccinated.

The Economico-Administrative Board of Montevideo has also enacted the following health ordinances: Regulating the sale and distribution of milk; regulating the use of coloring matters in the manufactory of foodstuffs, papers and cardboards.

II. COMPLIANCE WITH THE RESOLUTIONS PASSED BY THE FIRST FOUR CONFERENCES.

The Government of Uruguay has not overlooked the resolutions passed by the Sanitary Conferences, since both the international and domestic laws of the country are in accordance with the fundamental principles of said resolutions.

In support of this suffice it to say that the International Sanitary Convention of Rio de Janeiro has recognized the advisability of shortening the period of detention of passengers and of the disinfection of baggage, in the same manner as it was recognized by the second resolution of the First Sanitary Conference of Washington of 1902. On the other hand, the National Board of Hygiene has adopted the recommendations of the 6th resolution of the same conference as to the immediate disinfection of discharges from cholera patients. The same body has also taken into consideration the 2d resolution of the Third International Sanitary Conference as to the codification of all sanitary laws and measures, recommending the legislature of the Republic to appoint a commission charged with the compilation of such legislation. The commission was duly appointed and will surely have its work completed before the convening of the Sixth Sanitary Conference.

With reference to the 5th resolution of the Third Conference, we have to state that it has been complied with by the law of compulsory vaccination referred to.

The 17th resolution of the same conference, recommending the advisability of isolating consumptives, has been fulfilled by the Bureau of Public Assistance by ordering that such patients be gathered in the Fermin Ferreira Hospital, which has at present about 300 patients, and which will later have a capacity for 700.

Paragraph (d), Resolution II of the Fourth Conference has been put into practice with the order of the Bureau of Health of Montevideo, to the effect

that rats be captured in different parts of the capital and examined in the municipal bacteriological laboratory for the purpose of ascertaining the presence of plague.

Paragraph (d), Resolution III of the same Conference has also been complied with, because the sanitary authorities in the port of Montevideo enforce the medical inspection of ships at all times.

Resolution X has also been put into practice by sending to this Conference a delegate who had participated in a former conference.

As to Resolution XI, we shall, in part IV of this report, state the reasons why no information has been furnished to the International Sanitary Bureau of Washington.

III. REPORT ON THE ADOPTION OF THE WASHINGTON CONVENTION OF 1905 AND THE RATIFICATION OF ART. IX THEREOF AS RECOMMENDED BY THE FOURTH CONFERENCE AND THE PAN AMERICAN CONFERENCE OF BUENOS AIRES.

When the Third International Sanitary Conference of Mexico took place, the Uruguayan Delegate accepted on behalf of his Government and signed *ad referendum* the Sanitary Convention signed at Washington in 1905. This convention has been submitted to the Legislature for its approval. Therefore, we expect it will soon be a law of the Republic, and likewise, Article IX thereof as amended by the Fourth Conference.

IV. CONSTITUTION AND WORK OF THE INTERNATIONAL SANITARY INFORMATION COMMISSION.

The constitution and establishment of the Information Sanitary Bureau of Montevideo had to be postponed through unforeseen circumstances, and it was only in December, 1910, that it took place. The Executive appointed the following persons to constitute the same: Dr. Joaquin de Salterain, Dr. Julio Etcharpe, and Dr. Ernesto Fernández Espiro. Upon request of the Commission, the Minister of Foreign Affairs advised the Sanitary Bureau of Washington and the American Governments of the organization of the commission, under date of May 2, 1911, but up to this date the Montevideo Bureau has received no communications from the Washington Bureau.

This is the best opportunity to request the Delegates from the countries interested to request their Governments to send the necessary information to the bureaus of Montevideo and Washington.

V. SANITATION OF CITIES.

In the Third Conference of Mexico we stated that the Government had issued a decree in July, 1907, providing that studies and surveys be made for sanitation works in rural towns and cities. Those studies and surveys have now been completed, as well as the projects of the works that are to be undertaken.

The purpose of the Government in this important subject has been to provide those cities and towns with the best possible water supply and sewerage systems. The total costs of these works will amount to $17,000,000 gold.

VI. PROPHYLACTIC MEASURES AGAINST CHOLERA, YELLOW FEVER AND PLAGUE.

These diseases are entirely exotic in Uruguay. Whenever any cases have occurred, they were imported from abroad and always through the maritime way.

The prophylactic measures enforced in Uruguay against palgue are in accordance with the Convention of Rio de Janeiro of 1904, between the Argentine Republic, Brazil, Paraguay and Uruguay, which has established as the three fundamental principles in matters of international sanitary police, the following: 1st. Not to interrupt communication with any country, by closing ports or establishing sanitary cordons in frontiers; 2d. Not to reject any vessel, whatever its sanitary condition; 3d. To enforce prophylactic measures, the isolation of sick or suspected, the disinfection of ships and baggage, sanitary inspection of vessels, sanitary surveillance, and preventive vaccination.

There is the Isla de Flores, a well-equipped Sanitary Station, with a lazaretto for the observation of sick and suspected passengers.

For the extermination of rats, there are enforced in Uruguay the general provisions of the Rio de Janeiro Convention and of the Plan of Sanitary Maritime Defense against Plague issued by the National Board of Hygiene, which provides in Section 11 that when plague should appear in a maritime port of the Republic, no vessel coming therefrom shall be allowed to unload unless it has been previously rid of rats. In September, last, the Board of Directors of the Port of Montevideo began the enforcement of a plan for the systematic destruction of rats. The author of said plan is Dr. Jaime H. Oliver, a Director of the Port. On the other hand, the municipal Government of the Capital has a brigade of inspectors charged with the duty of inspecting all buildings and destroying the rats therein.

Among the diseases classed as exotic by the Maritime Sanitary Regulations, there is beri-beri, which does not exist in any section of our territory. The only cases observed have come through seaports. and in accordance with the said regulations, they have been confined and isolated in the lazaretto of the Isla de Flores, where they were retained until the departure of the vessel importing them. During the last four years only 64 cases have been recorded in that lazaretto.

VII. PROPHYLAXIS OF TRACHOMA, LEPROSY, VENEREAL DISEASES, SMALLPOX AND TUBERCULOSIS.

In the report presented to the Third Conference of Mexico, it was stated that the cases of trachoma observed by the occulists in Uruguay, were isolated cases which had not constituted focü of infection, and that only in the Foundling and Orphan Asylum of Montevideo there were some cases which tended to disappear, thanks to isolation.

We will now state that almost all the children lodged in that asylum were suffering from granular conjunctivitis. Energetic isolation measures were enforced, and thanks to them no new cases have occurred. The disease would have disappeared entirely had it not been for the fact that from time to time new children are admitted who are afflicted with the disease. At present the total number of trachoma patients in the asylum is 40. According to the observations of occulists, trachoma occurs with some frequency in Montevideo, and also among foreign immigrants.

Leprosy is a disease rare in Uruguay. As all physicians are compelled to report all cases coming under their observation, we have very complete statistics of the cases of leprosy. During the period of 13 years, from 1898 to 1910, 215 cases have been reported, according to the records of the National Council of Hygiene.

Venereal diseases.—In the year 1903 the National Council of Hygiene was authorized to prepare the Regulations governing prostitution, the inspection of which was under the control of the Department of Police. Prostitution is now regulated upon the following basis: Elimination of districts, and, therefore, toleration of disseminated prostitution; compulsory registration of all women engaged in the practice; medical inspection twice a week; use of a book of identification, wherein are recorded all medical inspections and the sanitary condition of each woman; prohibition to attend cafés, bars, etc.

As a complement to the service of medical inspection, there is a Dispensary for Prostitutes, at the head of which are two physicians.

The elimination of clandestine prostitution is entrusted to the Department of Police.

Prostitutes suffering from venereal diseases are confined in the Doctor Germán Segura syphylocomium, at the head of which is a Medical Director, with an assistant, under the control of the National Board of Hygiene. Very soon there will be a new building with capacity for 150 patients, costing $300,000, gold. The medical inspection of prostitutes is made by seven physicians for the capital; two for the syphylocomium, and two for the Dispensary.

During the five years that the syphylocomium has been in operation the following cases have been treated:

1906.

Syphilis	95
Chancres	18
Gonorrhea	266
Other diseases	29

1907.

Syphilis	75
Chancres	30
Gonorrhea	211
Other diseases	54

1908.

Syphilis	60
Chancres	26
Gonorrhea	379
Other diseases	42

1909.

Syphilis	34
Chancres	44
Gonorrhea	191
Other diseases	47

1910.

Syphilis	82
Chancres	52
Gonorrhea	271
Other diseases	76

It should be noted that there are included in those totals women from the various Departments of the Capital, in whose towns and cities inspection of prostitutes is also enforced.

Smallpox.—To the prophylactic measures against this disease, mentioned in the report to the Third Conference, there should be added the law of vaccination and re-vaccination above referred to.

During the period of 10 years, from 1901 to 1910, 421,707 inoculations have been made by the corps of official vaccinators. The number of vaccinations is really greater, because private physicians do a considerable amount of inoculations.

The vaccine used in Uruguay is manufactured by the Municipal Institute of Vaccine, and obtained from tuberculine-tested heifers. The number of tubes distributed by the Institute in 1910 was 236,240, as against 96,278 in 1909. From 1901 to 1910, it has distributed 797,771 tubes.

Tuberculosis.—In addition to the measures set forth in the report to the Third Conference, there are enforced the provisions of new laws, such as the ordinance providing for the inspection of dairies, and the law of 1910 establishing the tuberculization service and animal veterinary inspection, under the Bureau of Animal Sanitary Police. All milch cows are inoculated with tuberculine.

In August, 1908, there was created the School Medical Corps, which, among other duties, is charged with the individual examination of teachers, pupils and students in normal schools. In this examination particular attention is given to tuberculosis. Thus we have been able to find among 476 teachers examined, 77 suffering from pulmonar consumption. All those found thus afflicted are isolated until cured or retired.

Summer colonies are being organized, one being already in operation, for sick children from the Foundling and Orphan Asylum and for those selected by the School Medical Corps. This colony is giving splendid results in the fight against consumption, as are also the new pavillions for consumptives in the Fermin Ferreira Hospital.

Independently from the Government, there is an anti-tuberculosis league, founded by Dr. Joaquin de Salterain, which has four magnificent dispensaries in the Capital, specially built for that purpose.

The 31st of August, last, was designated as "tuberculosis day," during which there were received voluntary subscriptions from all over the country amounting to $85,000 gold. The league is now building an "Open-Air Cure Hospital" on a large tract of land beautifully located in the outskirts of the city.

Malaria is a disease unknown in our country. It is very rarely observed among foreigners.

VIII. STATISTICS ON MORBIDITY AND MORTALITY, AND REPORT UPON THE ADOPTION OF THE BERTILLON NOMENCLATURE.

The statistical data that we present before this Conference refer exclusively to the contagious diseases which occur most frequently in the Republic. We shall give below, by periods of five, from 1896, the statistics of cases and deaths. Comparing this table, it is seen that the largest number of cases belongs to tuberculosis, measles and typhoid fever, and that the largest of deaths was caused by tuberculosis, measles and smallpox.

	1896-1900		1901-1905		1906-1910	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Measles	3,798	372	4,059	197	6,128	212
Diphtheria	1,422	614	1,216	281	1,545	229
Whooping cough	702	243	768	186	647	190
Tuberculosis	2,375	4,539*	5,965	4,785	6,158	5,958

With regard to the adoption of the Bertillon Nomenclature, we have to state that it has been in force in Uruguay since 1901.

*The greater number of deaths is due to the fact that the reporting of cases was enforced only from the second period of five years.

IX. INSPECTION OF INTERNATIONAL TRAFFIC BOTH BY LAND AND SEA IN CASES OF TRANSMISSIBLE OR QUARANTINABLE DISEASES.

The supreme authority charged in Uruguay with the enforcement of the provisions above set forth, is the National Board of Hygiene, created by the law of October 31, 1895, and clothed with ample powers. It is composed of seven members appointed by the Executive. Its chairman is the supreme chief of the whole sanitary service of the Republic. In each Department there is one Departmental Hygiene Inspector and a Departmental Board of Hygiene. In Montevideo there is also a Bureau of Maritime Sanitary. Inspection with a Medical Director and three maritime physicians, whose special duty it is to prevent the introduction of exotic and infectious disease. According to the Maritime Sanitary Regulations, the diseases included in the former class are: cholera, yellow fever, beri-beri and plague, and in the latter class, typhus, smallpox, scarlet fever, measles and diphtheria.

The maritime sanitary regulations require that all vessels be provided with a bill of health, and besides every ship is duly examined upon arrival by a sanitary inspector.

Mention has been made of the Sanitary Station at Isla de Flores, provided with a lazaretto for infectious diseases. This island is situated outside the port of Montevideo, and is divided in two sections, one for healthy passengers under observation, and another for sick passengers. The maritime sanitary regulations provided that all passengers, when sick or convalescing from an exotic or infectious disease shall be confined in Isla de Flores.

As regards our land frontiers, we have no inspection over the international traffic, and only in case of an epidemic in a neighboring country do we enforce prophylactic measures.

X. SANITARY LAWS ON IMMIGRATION.

The immigration law of Uruguay was enacted in 1890, for the purpose of encouraging the introduction of immigrants into the country. Among its provisions, there is one prohibiting the master of any vessel from admitting aboard ship any person suffering from contagious diseases, or is poor, or over sixty years old, or physically or mentally unable to work. The said law also prohibits the immigration of Asiatics, Africans, Hungarians and Bohemians.

REPORT PRESENTED BY DOCTORS PABLO ACOSTA ORTIZ AND LUIS RAZETTI, DELEGATES FROM VENEZUELA.

Honored by the Government of Venezuela with its representation before this learned Conference, we beg to report as follows upon the various subjects of the Program:

I. Sanitary police laws and health measures adopted in each country since the fourth conference.

Organization of health services. By a presidential decree of January 6, 1910, there was created, a dependency of the Department of the Interior, the Bureau of Public Hygiene and Health, which has charge of all matters relating to maritime sanitary police, study of infectious diseases, sanitation and disinfection works, demographic statistics, leper colonies, insane asylums, etc.

The chief of this bureau is the National Director of Public Hygiene and Health, who is chairman *ex officio* of the Supreme Board of Health and Hygiene, whose principal function it is to legislate upon public health and hygiene matters which may be referred to it by the Executive.

Under the Bureau of Public Hygiene and Health is the Technical Division of Hygiene, divided into three sections, viz.: infectious diseases; chemistry and bacteriology; and statistics and demography. This division is equipped with complete laboratory of hygiene, which is provided with everything necessary for the manufacture of serums and vaccines, and for chemical and bacteriological analysis. A special department of the laboratory is exclusively devoted to plague, both in men and in rodents.

Besides the section chiefs, the Division has medical sanitary officers, house inspectors, sanitary policemen, sanitary squads, etc.

Special health tax.—By decree of the President, dated December 29, 1910, a special health tax, of one per cent of the total value of customs duties levied on merchandise imported. The Chamber of Commerce of Caracas, constituted as Central Board of Public Health, administers these funds, which are kept in the Bank of Venezuela, as a special account called "Hygiene and Sanitation Funds," together with revenues derived from the inspection of vessels, disinfections, etc.

Sanitary Organization of the City of Caracas.—The city of Caracas, capital of the Republic, is divided into nine Sanitary Districts, at the head of which is a Medical Health Officer. The personnel consists of two sanitary inspectors for each district; one general agent of sanitary police, and five subordinate agents who are at the head of the various squads, which are as follows: three for petrolization; four for drainage; three for destruction of mosquitoes, and seven for destruction of rats and for disinfection in general. One corporal has immediate charge of each of these squads.

There is also a special department of the Technical Bureau provided with all necessary apparatus and instruments for disinfection, and with a personnel well trained for the performance of its duties.

Sanitary Organization of Ports.—The ports of Venezuela opened to foreign traffic are: La Guaira, Puerto Cabello, Carúpano, Ciudad Bolívar, Maracaibo, Cristobal Colón, Puerto Sucre, Pampatar, and La Vela. In each of them there is a Director of Health whose duties are provided for in the Maritime Sanitary Police Regulation issued on June 4, 1909.

La Guaira and Puerto Cabello, the principal ports of the Republic, are each equipped with a bacteriological laboratory and a disinfection station with Clayton apparatus. Carúpano and Ciudad Bolívar also have disinfection stations.

Although our sanitary organization is not as yet perfect, we believe that we now have a solid basis upon which to build an excellent health service, which will soon be accomplished through the keen interest the present administration takes in matters of public hygiene.

II. Compliance with the resolutions passed by the first four conferences.

The Government of Venezuela has, within the means at its disposal, complied with the Resolutions of the Fourth Conference. Those of the first three it has accepted in principle, they being of real benefit to the public health of the American Continent.

III. Report on the adoption of the convention of Washington of 1905, and the ratification of article IX as amended by the fourth sanitary conference and the Pan American conference of Buenos Aires.

Venezuela was one of the signatory nations to the Sanitary Convention of Washington.

As to the amendment proposed by the Fourth Sanitary Conference and the Pan American Conference of Buenos Aires, to Article IX of the Convention referred to, we will take the liberty to make the following remarks:

1st. The text of said article should be carefully studied in order that it should be clearly and precisely termed. The periods therein fixed to consider a locality free from infection are not in conformity with every-day observations. In places where yellow fever and plague are prevalent it is noticed that periods of from one to more months may elapse without the occurrence of a single case, only to reappear later, although all necessary measures may have been enforced and continued to be enforced vigorously. Such disappearances and reappearances show that the infected locality is still in that condition even if no cases occur in man, that is to say, that it is not a passing epidemic, but an endemic. Yellow fever in some American countries is epidemic, but entirely endemic since time immemorial. Plague, except in very rare cases, such as that of La Guaira, where it only lasted six months, is a disease most difficult to fight, because the extermination of rodents, which are the main factor in maintaining the state of infection, is an arduous task, requiring not only large amounts of money but also a long time.

What can be the meaning of the "five days" prescribed for plague, and what that of "eighteen days" for yellow fever, in order that a locality may be considered free from infection of those diseases, when we all know that new cases may appear after months have elapsed since the last case? An examination of statistical figures would show us how far from scientific accuracy is the wording of the now famous Article IX of the Washington Convention.

2d. As regards the amendment thereto suggested by the Fourth Conference, we notice that the words "to the satisfaction of the interested party," instead of elucidating the text and of giving a precise meaning to the spirit of the article, it makes its interpretation obscure and difficult. Which is the interested party when a country is unfortunate to have been invaded by an epidemic disease? We suppose it is the neighboring country still free from infection, or both, if the wording were to be "both interested parties." But then the question arises. which of them is entitled to prescribe the extent of such satisfaction? When are the parties to declare themselves as satisfied? We know that plague epidemics are intermittent and last for some years in certain countries, and that yellow fever is endemic in some American Republics.

For the above reasons we believe that Article IX of the Washington Convention should be carefully considered and so amended as to be in accordance with equity and justice upon which the relations between civilized nations should be based.

IV. Constitution and work of the sanitary information committees.

The Venezuelan Committee is composed of Dr. Carlos M. de la Cabada, the Director of Public Hygiene and Health, and Dr. Luis Razetti and P. Acosta

Ortiz, Delegates from Venezuela to the Fourth and Fifth Sanitary Conferences. Organized in due time this Committee has performed its duties regularly.

V. Sanitation of cities and specially of ports.

The sanitation of the city of Caracas urgently calling for a good sewer system, the Government of the Republic entered into a contract with an English company, whose engineers have already arrived to make the necessary surveys, and the actual work of construction will soon be started. The total cost of the system is estimated over 20,000,000 francs. With its excellent climatic and topographic conditions, a good sewer system and well paved streets, Caracas will be one of the healthiest cities in the Continent.

VI. Prophylactic measures against plague, cholera, and yellow fever.

A. Measures against Plague.

Under the General Ordinance for the Defense of Caracas against Plague, the campaign is conducted upon the following basis: 1st. Destruction of rodents; 2d. Early diagnosis of the disease and compulsory declaration of every case; 3d. Systematic isolation of all cases in a special station, and, 4th, use of the Haffkine lymph and of the Yersin serum. The systematic and vigorous enforcement of these measures has produced satisfactory results, as may be seen from the table given below, which comprises from April 18, 1908, when the epidemic started, until this date. If we have not as yet succeeded in eradicating the disease entirely, we have at least reduced it to a very limited number of human cases. Indeed, 188 cases during 41 in a population of nearly 80,000 is not much for so ravaging a disease as plague. It is venturing to assume that very soon plague will have disappeared from Caracas, just as it did from La Guaira, where it has not occurred during the last three years, neither in man nor in rodents. In making this assertion we base it upon the fact that the disease in rodents has decreased from 0.66 per cent in 1909 to 0.32 in 1911. The destruction of rats in Caracas is rather difficult on account of the topography of the land.

The table referred to, showing the number of plague cases in Caracas, is as follows:

YEAR.	CASES.
1908	78
1909	29
1910	39
1911	42
	188

B. Measures against Yellow Fever.

Yellow fever is an endemic disease in Venezuela, one territory being within the yellow fever zone. The *stegomya callopus* is one of the commonest insects in our cities. Several learned Venezuelan physicians have made important clinical investigations on the subject, and the First Venezuelan Medical Congress appointed a commission to study the Venezuelan mosquito.

In the early part of 1910 was begun systematically the campaign against yellow fever in Caracas, and in the beginning of 1911 the enforcement of active and efficient prophylactic measures was started. This campaign is carried on as follows: 1st. Compulsory declaration of all cases, both confined and suspected; 2d. Rigid isolation of all patients; 3d. Systematic destruction of mosquitoes and their larvae.

These prophylactic measures having been in force since not long ago, it is not possible at this time to notice the results of the campaign, but, as the methods adopted in Venezuela are copied from those so successfully tested in Cuba, Mexico, Brazil, Panama, etc., it is only logical that we should expect to achieve the same satisfactory results.

During 1910, 15,968 houses were inspected for mosquitoes, and 4,415 bottles of petroleum used in destroying the insects. During the first eight months

of 1911, 26,850 houses have been inspected, and 5,706 bottles of petroleum used. During the same months 6,129 deposits were found with mosquito larvae, and destroyed.

The cases of yellow fever reported to Bureau of Hygiene during 1910 and 1911 were as follows: 1910—122 cases with 39 deaths, or a death rate of 32 per cent; 1911 (January to August)—100 cases with 52 deaths, or a death rate of 50 per cent.

C. Measures against Cholera.

Our Martime Sanitary Police Regulations prescribe the manner in which vessels arriving from cholera-infected localities should be treated, in accordance with the provisions of the Washington Sanitary Convention. As soon as it became known that an epidemic broke out in Italy, instructions were given to all Health Directors at the various ports to make a more rigid inspection of all vessels, specially those coming from Mediterranean ports. No suspected ships have been allowed to enter our ports, and up to the present time we have not had one single case, in spite of our considerable traffic with Italy. As an additional preventive measures, all physicians are required to report all cases of *cholera nostras* coming under their observation, and a careful investigation is made of every case thus reported.

VII. What constitutes immunity from yellow fever.

Although in reality it has been scientifically and definitely established what constitutes immunity from yellow fever, or when should a person be considered as immune, it seems logical and natural to establish—even though temporarily—that besides those who have suffered an attack, also those who have lived in an infected locality for a long time without contracting the disease, may be considered as immune. As regards individuals born in an infected locality it is to be supposed that immunity is so easily acquired in youth.

VIII. Prophylaxis of trachoma, leprosy, scleroma, venereal diseases, small-pox, tuberculosis, and malaria.—Legislation against these diseases and results achieved.

Trachoma.—This is a disease which is very seldom noticed in Venezuela, and the health authorities at the ports are very careful in the examination of persons arriving at the Republic, never allowing the introduction of any person suffering from the disease.

Leprosy.—There are in Venezuela two leper asylums, one in Cabo Blanco, in the Federal District, with a colony of 300 lepers, and another in Providencia Island, State of Zulia, with 500 lepers. In Venezuela, the denunciation and isolation of all cases of leprosy is compulsory. Recently we have been experimenting with "Nastin," but we are as yet unable to report upon the qualities of this new remedy.

Venereal Diseases.—We have no special legislation on the prophylaxis of venereal diseases. Prostitution is not regulated, but the Police Department does not permit the public practice of the profession, and regulates the system of passive tolerance. The women devoted to the profession do so clandestinely. In our principal hospital we have a department of syphilis and dermatology. There are also special clinics of ginecology and diseases of genital organs.

Small-pox.—Thanks to compulsory vaccination and re-vaccination, Venezuela is almost free from this disease; only once in a long while some sporadic case occurs.

Tuberculosis.—The white plague continues to occupy a high place in our mortality statistics. In the Hospital Vargas of Caracas, special wards have been established for the proper isolation and treatment of consumptives. There is in the capital a private association called the Anti-Tuberculosis League which renders most valuable aid through its dispensary, distributing freely among the poor all necessary medicines and means, and holding periodical public lectures to educate the masses.

There is now under consideration the establishment of a private tuberculosis sanatorium in the outskirts of Caracas.

Besides a special propaganda against the disease, there are enforced certain measures of disinfection and sanitation of public buildings, theaters, schools, barracks, and private houses which may be infected.

By decree of October 26, 1910, the following articles are allowed free of custom duties:

Calcium carbide, creoline, sulphur, formol, sulphate of iron, sulphate of copper, Tersin's serum, Haffkine's lymph, disinfecting apparatus of all kinds, cultures, so-called "kill rats" and "rat plague."

Malaria.—The prophylaxis of malaria is, in the opinion of the Venezuelan Delegation, the most important problem affecting the welfare of the intertropical countries of the Western Hemisphere. We therefore take the liberty to call the special attention of the Conference to this subject.

In the work of general sanitation of the tropical countries of America, malaria must necessarily occupy a prominent place, because that tenacious malady, the most formidable endemic of our zone, is the worst and most powerful enemy of the progress of our countries. In Venezuela, for instance, malaria kills every year from 8,000 to 10,000 inhabitants of all ages.

Since the Fourth Sanitary Conference, there was held in Simla, British India, in October, 1910, a special conference for the study of malaria and its prophylaxis. That meeting passed resolutions of inestimable value for the defense against malaria. These conclusions we beg to recommend this Conference to adopt, as constituting a code for the defense against malaria.

IX. Monthly and yearly statistics on mortality and morbility in the principal ports and cities, and report upon the adoption of the Bertillon nomenclature.

Since all along the Venezuelan coast, malaria and dysentery still prevail endemically, our mortality and morbility are quite high. The death rate is represented thus: La Guaira, 33 per 1,000; Puerto Cabello, 42 per 1,000; Maracaibo, 36 per 1,000; Cuidad Bolívar, 23 per 1,000; Carúpano, 25 per 1,000.

Bertillon Nomenclature.—This nomenclature has been in force in Venezuela since the time when we undertook the systematic study of demographic statistics. Recently, the Government revised its blanks in accordance with the amendments introduced in 1909 and with the New Abridged International Nomenclature; but further increasing it in order to insert items which are indispensable in the tropical countries.

Death certificates.—By decree of March 31, 1911, the Federal Government has provided that the death certificates shall be uniform throughout the Republic, and made upon blanks printed and furnished by the Government. In this certificate is entered the immediate cause of death, the principal disease, and the number belonging to it. To facilitate this, the nomenclature is reproduced at the back of the blank.

X. Sanitary inspection of international traffic, both by land and sea, in cases of quarantine infectious diseases.

With regard to the sanitary inspection of international trade, we are governed since 1909 by the provisions of the Maritime Sanitary Police Regulations, drawn in conformity with the needs and resources of the Republic, but based upon the stipulations of the Washington Convention.

XI. Sanitary laws on immigration.

As the immigration into Venezuela is still very small, we have no special legislation on the subject. At present we confine ourselves to a careful examination of all passengers arriving from abroad, rejecting those that may be suffering of any infectious disease.

XII. Adoption of sanitary documents approved by the Fourth Conference.

We consider that the forms of bill of health approved by the Fourth Conference, being useful for their purpose, should be adopted by all countries of the Continent, thus attaining a much desired uniformity.

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